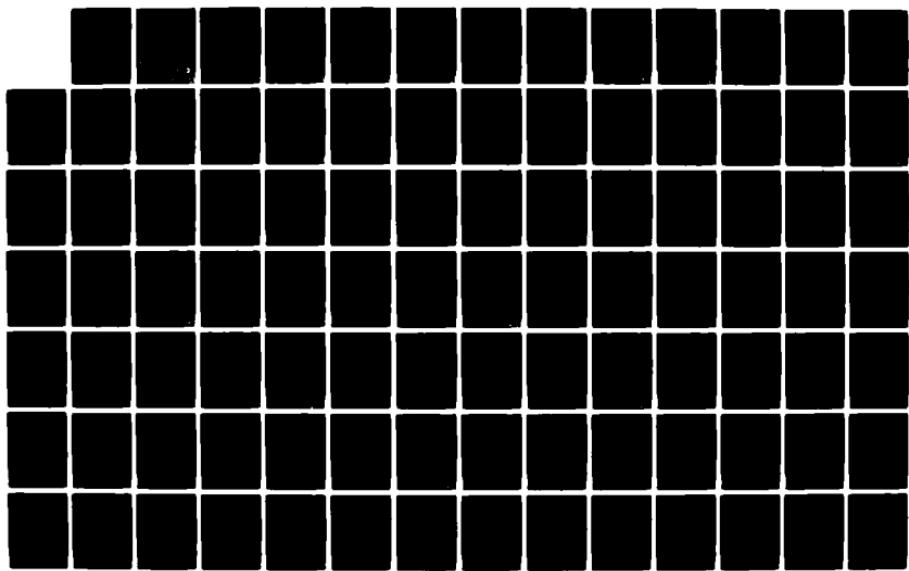
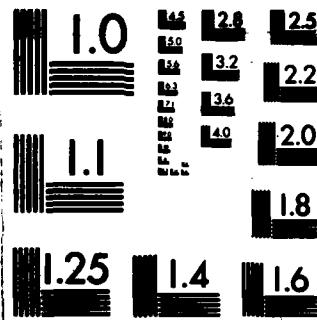


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UNCLASSIFIED AFGL-TR-83-0334-VOL-3 F19628-81-C-0042 F/G 4/1 NL





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NATIONAL BUREAU OF STANDARDS 1963-A

AD-A148 096

AFGL-TR-83- 0334(III)

OPERATIONAL TACTICAL DECISION AID (OTDA) FOR
INFRARED (8-12 μm) SYSTEMS - MARK II
MANUAL VERSION

Appendix B - Insolation and Sky Radiation Tables

Donald B. Hodges

Systems and Applied Sciences Corporation (SASC)
1577 Springhill Road, Suite 600
Vienna, Virginia 22180

September 30, 1983

Scientific Report No. 8

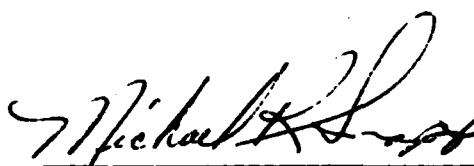
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UNITED STATES AIR FORCE
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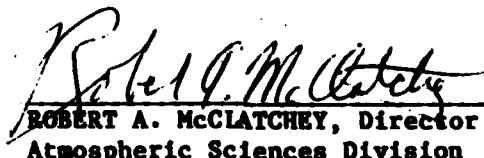


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FOR THE COMMANDER



ROBERT A. MCCLATCHY, Director
Atmospheric Sciences Division

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PREFACE

This publication consists of a basic report and four appendixes, each issued as a separate document.

This format will facilitate operational use by accommodating the sizeable bulk of the materials presented and the CONFIDENTIAL security classification of Appendix D.

* * * *

The material contained herein is unchanged from Appendix B of SASC Report No. 3. The content of this Appendix was the work of the co-authors of SASC Report No. 3; the contributions of R. Shapiro, C. N. Touart, and R. F. Wachtmann are hereby acknowledged.

Another collaborator in this Appendix was B. A. Mareiro, Jr.

Special thanks are due to Lt. Col. R. Wright, Lt. Col. K. Wantzloeben, Maj. W. Smith, Maj. J. Elrick and other representatives of Hq. Air Weather Service who continually enriched our understanding of the operator's problems.

Throughout this study we were supported and guided by the AFGL Contract Managers: Lt. Col. K. G. Cottrell to 2 May 1983, then Mr. R. V. Cormier.

The report was typed by D. M. Connor.

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May - Aug.	15
Sep - Dec.	21
52 N.	27
Jan - Apr.	27
May - Aug.	33
Sep - Dec.	39
50 N.	45
Jan - Apr.	45
May - Aug.	51
Sep - Dec.	57
48 N.	63
Jan - Apr.	63
May - Aug.	69
Sep - Dec.	75
38 N.	81
Jan - Apr.	81
May - Aug.	87
Sep - Dec.	93
36 N.	99
Jan - Apr.	99
May - Aug.	105
Sep - Dec.	111
34 N.	117
Jan - Apr.	117
May - Aug.	123
Sep - Dec.	129
32 N.	135
Jan - Apr.	135
May - Aug.	141
Sep - Dec.	147

30 N.	• 153
Jan - Apr.	• 153
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Sep - Dec.	• 165
28 N.	• 171
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Jan - Apr.	• 211
May - Aug.	• 217
Sep - Dec.	• 225
40 N.	• 231
Jan - Apr.	• 231
May - Aug.	• 237
Sep - Dec.	• 243
20 N.	• 249
Jan - Apr.	• 249
May - Aug.	• 255
Sep - Dec.	• 261
0	• 267
Jan - Apr.	• 267
May - Aug.	• 271
Sep - Dec.	• 275
20 S.	• 279
Jan - Apr.	• 279
May - Aug.	• 285
Sep - Dec.	• 289
40 S.	• 295
Jan - Apr.	• 295
May - Aug.	• 301
Sep - Dec.	• 305
60 S.	• 311
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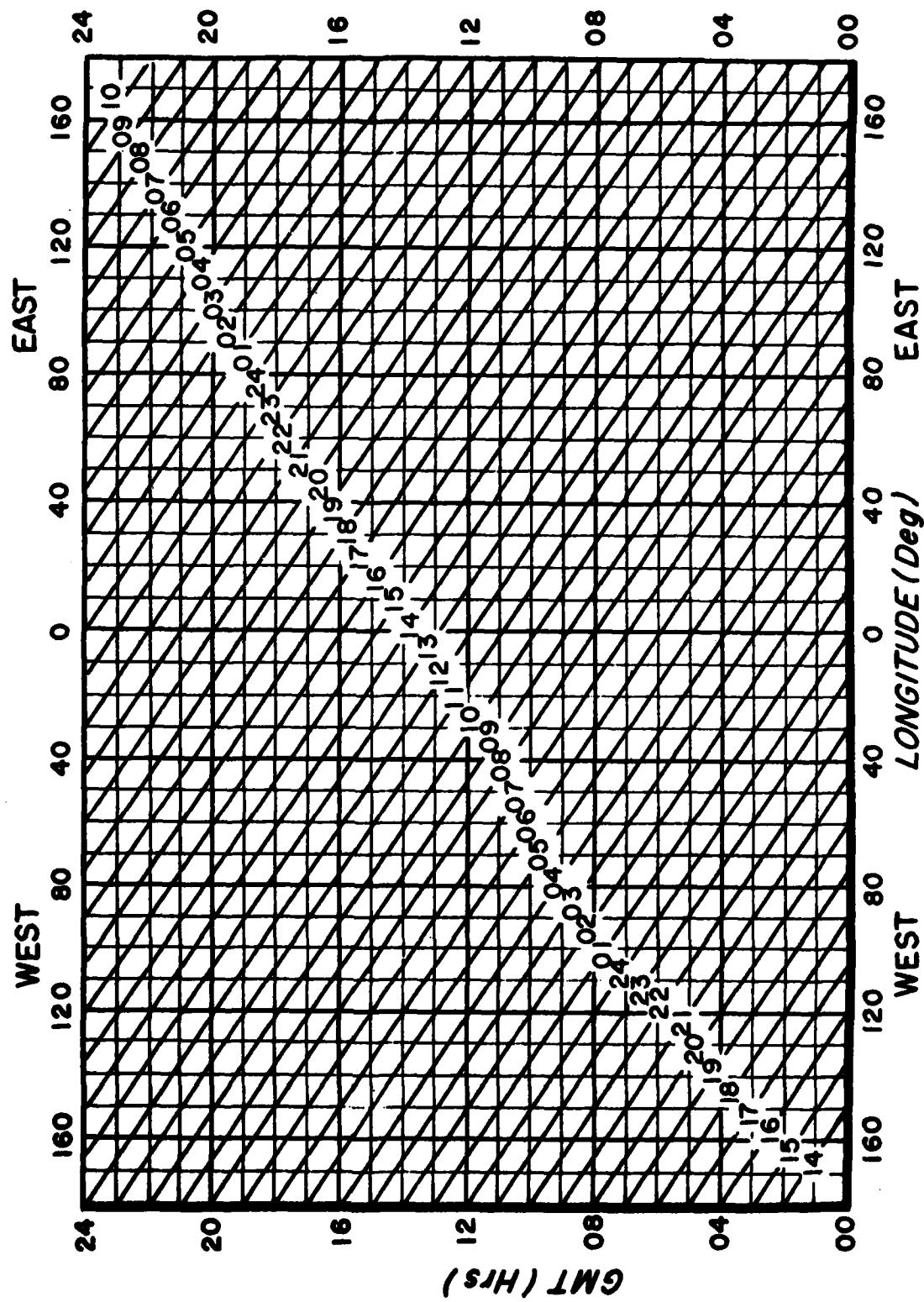


Fig. B-1. Mean Sun Time (MST) as a Function of Greenwich Mean Time (GMT) and Longitude

Mean Sun Time (MST) may be computed from the equation $MST = GMT \pm (\text{longitude}/15)$, where the expression in parenthesis is positive for east longitude and negative for west longitude.

TEST	DATE												
	1	5	10	15	20	25	30	5	10	15	20	25	30
0400	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000
0600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.07	.11
	000	000	000	000	000	000	000	000	000	015	058	102	152
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.08	.15
	000	000	000	000	000	000	000	000	000	024	068	111	154
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.06	.09	.12	.15
	000	000	000	000	000	000	000	000	000	033	077	120	164

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JAN-APR 54 N TABLE B-1 SOLAR PARAMETERS COS Z⁻¹
XO (W/M²*2.) * SIGNIFIES COS Z⁻¹. ADD 100 TO VALUES PRECEDED BY *

MST	DATE										DATE									
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0700	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.06	.09	.13	.16	.19	
000	000	000	000	000	000	000	000	000	000	000	000	000	000	043	086	129	172	216	258	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	095	137	189	224	267	309	
000	000	000	000	000	000	000	000	000	000	000	000	000	000	146	188	231	274	317	359	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	000	005	042	080	146	188	
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	005	042	080	146	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	000	021	055	091	130	195	
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	021	055	091	130	
0800	.00	.00	.00	.00	.00	.00	.00	.03	.05	.07	.10	.13	.16	037	068	102	139	178	218	
000	000	000	000	000	000	000	000	000	000	000	000	000	000	243	286	328	371	413	454	
15	.00	.00	.00	.00	.00	.00	.02	.04	.06	.08	.11	.13	.16	063	114	149	186	224	290	
000	000	000	000	000	000	000	005	025	049	063	114	149	186	224	290	332	374	417	459	
30	.01	.01	.01	.02	.03	.05	.07	.09	.11	.14	.16	.19	.22	027	059	103	130	169	230	
009	011	019	032	048	069	093	127	159	193	230	269	335	377	419	461	502	543	589	623	
45	.03	.04	.04	.05	.06	.08	.10	.12	.14	.17	.20	.22	.27	047	051	059	072	089	110	
047	051	059	072	089	110	135	169	201	236	273	312	378	419	461	503	544	584	630	666	
0900	.06	.06	.07	.08	.09	.11	.12	.15	.17	.20	.22	.25	.30	209	241	276	314	353	416	
084	088	097	110	128	149	174	209	241	276	314	353	416	460	502	543	584	624	669		
15	.08	.09	.09	.10	.12	.13	.15	.18	.20	.22	.25	.28	.33	119	123	133	146	164	186	
151	156	166	180	198	221	247	247	279	315	352	391	457	498	540	581	621	660	705	740	
30	.11	.11	.12	.13	.14	.16	.18	.20	.22	.25	.28	.31	.35	151	156	166	186	206	247	
181	186	197	211	230	253	279	315	348	384	421	461	526	567	608	648	688	726	770	804	

JAN-APR

54 N

TABLE B-1 SOLAR PARAMETERS COS Z
X0 (W/M**2.) *** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

NST	JAN					FEB					DATE					APR									
	1	5	10	15	20	25	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30	
1000	.15	.16	.17	.18	.20	.22		.25	.27	.30	.32	.35	.40	.43	.46	.49	.52	.55	.58	.61	.64	.66	.68	.70	
208	214	225	240	259	282	309		345	379	414	452	491	556	597	638	678	717	755	798	832	863	892	919	943	
15	.16	.17	.18	.19	.20	.22	.24		.26	.29	.32	.34	.37	.42	.45	.48	.51	.54	.57	.60	.63	.65	.68	.70	.72
233	238	250	265	285	309	336		372	406	442	480	519	584	624	665	705	743	781	823	857	888	916	942	966	
30	.18	.19	.20	.22	.24	.26		.28	.31	.33	.36	.39	.44	.47	.50	.53	.56	.59	.62	.64	.67	.69	.71	.73	
254	260	272	288	308	332	360		397	430	467	504	544	608	649	689	728	767	804	846	873	909	937	963	986	
45	.19	.20	.21	.22	.23	.25	.27		.30	.32	.35	.38	.41	.45	.48	.51	.54	.57	.60	.63	.65	.68	.70	.73	.74
272	279	291	308	328	353	380		418	452	488	526	565	629	670	710	749	787	823	865	897	927	955	980	*003	
1100	.20	.21	.22	.23	.24	.26	.28		.31	.33	.36	.39	.42	.47	.50	.53	.56	.58	.61	.64	.67	.69	.72	.74	.75
288	295	307	324	345	370	398		436	470	507	544	584	647	687	727	766	803	840	881	912	942	970	995	*017	
15	.21	.22	.23	.24	.25	.27	.29		.32	.35	.37	.40	.43	.48	.51	.54	.57	.59	.62	.65	.69	.70	.72	.74	.76
300	307	320	338	359	384	413		451	485	522	560	599	662	702	741	780	817	853	893	925	954	981	*006	*028	
1	.22	.22	.23	.25	.26	.28	.30		.33	.35	.38	.41	.44	.48	.51	.54	.57	.60	.63	.66	.63	.67	.73	.75	.77
308	316	330	348	370	395	424		462	497	533	571	610	674	713	752	790	827	862	902	933	962	989	*014	*036	
45	.22	.23	.24	.25	.27	.29	.31		.33	.36	.39	.41	.44	.49	.52	.55	.58	.61	.63	.66	.63	.67	.71	.73	.75
314	322	337	355	377	403	432		471	505	542	580	619	682	721	759	797	834	869	908	933	957	984	*018	*040	
1200	.22	.23	.24	.25	.27	.29	.31		.34	.36	.39	.42	.45	.43	.52	.55	.58	.61	.64	.67	.63	.71	.73	.75	.77
317	325	340	359	381	407	437		475	510	547	585	623	686	725	763	801	837	871	910	941	.969	995	*019	*041	
15	.22	.23	.24	.25	.27	.29	.31		.34	.36	.39	.42	.45	.43	.52	.55	.58	.61	.63	.67	.69	.71	.73	.75	.77
316	325	340	359	382	408	438		477	512	548	586	625	687	726	764	801	837	871	909	933	968	993	*017	*039	
30	.22	.23	.24	.25	.27	.29	.31		.34	.36	.39	.42	.45	.49	.52	.55	.58	.61	.63	.66	.63	.71	.73	.75	.77
311	321	336	356	379	406	436		475	510	547	584	623	685	723	761	798	833	867	905	935	962	988	*012	*033	
45	.22	.23	.24	.25	.26	.28	.31		.33	.36	.39	.41	.44	.49	.52	.55	.57	.60	.63	.66	.63	.70	.72	.74	.76
304	314	330	350	373	400	430		470	505	541	579	617	679	717	754	791	826	859	897	927	954	980	*003	*024	

JAN-APR 54 N TABLE B-1 SOLAR PARAMETERS $\cos Z_{x_0}$ (W/M**2.) *** SIGNIFIES $\cos Z = 1$. ADD 1000 TO VALUES PRECEDED BY *

MST	DATE										APR									
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1300	.21	.23	.24	.26	.28	.30		.33	.35	.38	.41	.44		.48	.51	.54	.57	.59	.62	
293	303	320	340	364	391	421		461	496	532	570	608		670	707	744	780	815	848	
15	.20	.21	.22	.23	.25	.27	.29	.32	.34	.37	.40	.43		.47	.50	.53	.56	.58	.61	
280	290	307	327	352	379	409		449	484	520	558	596		657	694	731	767	801	834	
30	.19	.19	.21	.22	.24	.26	.28	.31	.33	.36	.39	.42		.46	.49	.52	.54	.57	.60	
263	273	290	311	336	363	394		434	469	505	542	580		641	678	714	750	784	817	
45	.17	.18	.19	.21	.22	.24	.27	.30	.32	.35	.37	.40		.45	.47	.50	.53	.55	.58	
243	254	271	292	317	345	375		415	450	486	523	561		621	658	694	730	763	796	
1400	.16	.16	.18	.19	.21	.23	.25	.28	.31	.33	.36	.39		.43	.46	.49	.51	.54	.56	
220	231	249	270	295	323	354		393	428	464	501	539		599	635	671	706	740	772	
15	.14	.15	.16	.17	.19	.21	.23	.26	.29	.31	.34	.37		.41	.44	.47	.49	.52	.54	
194	205	223	245	270	298	329		369	403	440	476	514		573	609	645	680	713	745	
30	.12	.13	.14	.15	.17	.19	.21	.24	.27	.29	.32	.35		.39	.42	.45	.47	.50	.52	
165	177	195	217	242	271	301		341	376	412	448	485		544	581	616	650	683	715	
45	.10	.10	.12	.13	.15	.17	.19	.22	.25	.27	.30	.33		.37	.40	.42	.45	.47	.50	
134	146	165	187	212	240	271		310	345	381	417	454		513	549	584	618	651	683	
1500	.07	.08	.09	.11	.13	.15	.17	.20	.22	.25	.27	.30		.34	.37	.40	.42	.45	.47	
100	113	131	153	179	207	238		277	312	347	384	420		478	514	549	583	616	647	
15	.05	.05	.07	.08	.10	.12	.14	.17	.20	.22	.25	.28		.32	.34	.37	.40	.42	.44	
064	077	095	118	143	172	202		241	276	311	347	384		442	477	512	546	578	610	
30	.02	.03	.04	.06	.08	.10	.12	.14	.17	.19	.22	.25		.29	.32	.34	.37	.39	.42	
026	039	059	080	105	134	164		203	238	273	309	345		402	438	472	506	538	570	
45	.00	.00	.01	.03	.05	.07	.09	.12	.14	.17	.19	.22		.26	.29	.31	.34	.36	.38	
000	000	017	040	065	094	124		163	197	232	269	304		361	396	430	464	496	527	

JAN-APR 54 N TABLE B-1

SOLAR PARAMETERS COS Z X0 (W/M**2.)

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

NST	1	5	10	15	20	25	30	DATE						APR																
								5	10	15	20	25	30	5	10	15	20	25	30											
1800	.00	.00	.00	.00	.02	.04	.06	.09	.11	.14	.16	.19	.23	.25	.28	.30	.33	.35	.38	.40	.42	.44	.46	.48						
	000	000	000	000	023	051	062	121	154	189	225	260	317	352	386	420	452	483	519	548	575	601	625	648						
15	.00	.00	.00	.00	.01	.03	.05	.08	.10	.13	.15	.02	.05	.07	.10	.12	.16	.19	.21	.24	.26	.28	.31	.33	.36	.38	.40	.41		
	000	000	000	000	000	008	038	076	110	144	180	215	272	306	340	374	406	437	473	502	530	556	580	604						
30	.00	.00	.00	.00	.00	.00	.00	.030	.064	.098	.133	.168	.224	.259	.293	.326	.358	.390	.426	.455	.483	.509	.534	.559						
	000	000	000	000	000	000	000	030	064	098	133	168	176	210	244	277	309	341	377	405	434	461	486	511						
45	.00	.00	.00	.00	.00	.00	.00	.000	.016	.050	.085	.120	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000			
1700	.00	.00	.00	.00	.00	.00	.00	.000	.000	.001	.035	.070	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000			
	000	000	000	000	000	000	000	000	000	000	000	000	126	160	194	227	259	291	327	357	385	412	438	462						
15	.00	.00	.00	.00	.00	.00	.00	.000	.000	.000	.000	.019	.000	.000	.000	.000	.000	.000	.005	.008	.10	.13	.15	.18	.20	.22	.25	.27	.29	.31
	000	000	000	000	000	000	000	000	000	000	000	019	074	109	142	176	208	240	276	306	335	362	388	413						
30	.00	.00	.00	.00	.00	.00	.00	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.002	.004	.07	.09	.11	.14	.16	.19	.21	.23	.25	.27	
	000	000	000	000	000	000	000	000	000	000	000	000	022	057	090	124	156	188	225	255	284	311	338	364						
45	.00	.00	.00	.00	.00	.00	.00	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.03	.05	.08	.10	.13	.15	.17	.19	.21	.23	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	038	071	104	136	173	203	232	260	288	313	
1800	.00	.00	.00	.00	.00	.00	.00	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	018	051	083	121	151	181	209	237	263		
15	.00	.00	.00	.00	.00	.00	.00	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
30	.00	.00	.00	.00	.00	.00	.00	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
45	.00	.00	.00	.00	.00	.00	.00	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
1800	.00	.00	.00	.00	.00	.00	.00	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
15	.00	.00	.00	.00	.00	.00	.00	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
30	.00	.00	.00	.00	.00	.00	.00	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
45	.00	.00	.00	.00	.00	.00	.00	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	

JAN-APR 54 N TABLE B-1 SOLAR PARAMETERS COS Z =¹
X0 (W/M²*2.) ADD 1000 TO VALUES PRECEDED BY *

*** SIGNIFIES COS Z =¹
ADD 1000 TO VALUES PRECEDED BY *

MST	DATE											
	1	5	10	15	20	25	5	10	15	20	25	30
1900	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
000	000	000	000	000	000	000	000	000	000	000	000	000
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
000	000	000	000	000	000	000	000	000	000	000	000	000
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
000	000	000	000	000	000	000	000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
000	000	000	000	000	000	000	000	000	000	000	000	000

JAN-APR 54 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.) *** SIGNIFIES COS Z **1.
ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					DATE					JUL					AUG				
	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
0300	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0400	.00	.00	.00	.01	.02	.03	.04	.05	.05	.05	.04	.04	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.02	.04	.05	.06	.05	.06	.05	.06	.05	.07	.06	.05	.03	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.02	.04	.05	.07	.08	.10	.09	.10	.09	.10	.09	.11	.11	.11	.11	.11	.10	.09	.08	.06	.05	.03	.01	.00	.00
45	.05	.07	.09	.11	.12	.13	.14	.14	.15	.14	.14	.14	.14	.12	.11	.10	.08	.07	.05	.03	.01	.00	.00	.00	.00
0500	.09	.11	.12	.14	.15	.16	.17	.18	.18	.17	.17	.17	.18	.16	.14	.13	.12	.10	.08	.05	.04	.02	.00	.00	.00
15	.12	.14	.16	.18	.19	.20	.21	.21	.21	.21	.21	.21	.21	.20	.19	.18	.17	.15	.14	.12	.10	.08	.06	.04	.02
30	.16	.18	.20	.21	.22	.23	.24	.25	.25	.25	.25	.24	.24	.23	.23	.21	.20	.19	.17	.15	.13	.12	.10	.08	.05
45	.19	.21	.23	.25	.26	.27	.28	.28	.28	.28	.28	.28	.28	.27	.26	.25	.24	.22	.21	.19	.17	.15	.13	.11	.09
202	263	310	330	346	359	369	374	376	376	372	365	356	344	330	314	296	276	250	227	203	177	151	123		

MAY-AUG 54 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M²*2.) * SIGNIFIES COS 2⁻¹. ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					DATE					AUG								
	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0600	.23	.25	.27	.28	.30	.31	.31	.32	.32	.32	.31	.30	.30	.29	.27	.26	.24	.23	.21	.19	.17	.15	.13	
	311	337	359	378	394	406	416	421	423	422	419	4:2	403	391	378	362	344	324	299	276	252	227	201	174
15	.27	.29	.30	.32	.33	.34	.35	.35	.35	.35	.35	.34	.33	.32	.31	.30	.28	.26	.24	.23	.21	.19	.17	
	361	386	408	426	441	453	463	468	470	469	465	459	450	438	425	409	392	373	348	325	302	278	252	225
30	.31	.32	.34	.36	.37	.38	.38	.39	.39	.39	.38	.38	.37	.36	.35	.33	.32	.30	.28	.26	.25	.23	.21	
	411	435	456	474	489	501	510	515	517	516	512	505	497	485	472	457	440	421	397	375	352	328	302	276
45	.34	.36	.38	.39	.40	.41	.42	.42	.42	.42	.42	.41	.40	.39	.38	.37	.35	.33	.32	.30	.28	.26	.24	
	460	484	504	522	536	548	557	561	563	562	558	552	543	532	519	504	487	469	445	424	401	377	352	326
0700	.38	.40	.41	.43	.44	.45	.45	.46	.46	.46	.45	.45	.44	.43	.42	.40	.39	.37	.35	.34	.32	.30	.28	
	508	531	552	569	583	594	603	607	609	607	604	597	589	578	565	551	535	517	493	472	450	426	402	376
15	.41	.43	.45	.46	.47	.48	.49	.49	.49	.49	.49	.48	.47	.46	.45	.44	.42	.41	.39	.37	.36	.34	.32	
	555	578	598	615	629	639	648	652	654	652	649	642	634	624	611	597	581	563	540	520	498	475	450	425
30	.45	.47	.48	.49	.51	.51	.52	.52	.53	.53	.52	.51	.50	.50	.48	.47	.46	.44	.43	.41	.39	.37	.35	
	602	624	644	660	673	684	692	696	697	696	693	686	678	668	656	642	626	609	586	565	545	522	498	473
45	.48	.50	.51	.53	.54	.55	.55	.56	.56	.56	.55	.55	.54	.53	.52	.51	.49	.47	.46	.44	.42	.41	.39	
	647	669	688	704	717	727	735	739	740	739	735	729	721	711	699	686	670	654	631	612	590	568	544	519
0800	.51	.53	.55	.56	.57	.58	.58	.59	.59	.59	.58	.58	.57	.56	.55	.54	.53	.51	.49	.48	.46	.44	.42	
	690	712	730	746	759	768	777	780	782	780	777	771	763	753	742	728	713	697	675	655	635	612	589	564
15	.54	.56	.58	.59	.60	.61	.61	.62	.62	.62	.61	.61	.60	.59	.58	.57	.56	.54	.52	.51	.49	.47	.45	
	732	753	771	787	799	809	816	820	821	820	817	811	803	794	783	770	755	739	717	693	677	656	632	608
30	.57	.59	.61	.62	.63	.64	.64	.65	.65	.65	.64	.64	.63	.62	.61	.60	.59	.57	.55	.54	.52	.50	.48	
	772	793	811	826	838	847	855	858	859	858	855	850	842	833	822	809	795	779	758	739	718	697	674	649
45	.60	.62	.63	.65	.66	.66	.67	.67	.68	.68	.67	.66	.66	.65	.64	.63	.62	.60	.59	.57	.55	.53	.51	
	810	830	848	862	874	883	891	895	896	895	891	886	879	870	859	847	833	817	797	778	758	736	713	689

MAY-AUG

54 N

TABLE B-1 SOLAR PARAMETERS

COS 2

X0 (W/M**2)

*** SIGNIFIES COS 2 = 1.

ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					JUL					AUG						
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30
0900	.63 .65 .66 .67 .68	.69	.70	.70	.70	.70	.70	.70	.70	.70	.69	.68	.68	.67	.66	.64	.63	.61	.60	.58	.56	.54
	946 945 943 947 909	918	925 929 930 929 926	921	914 905 895 882 869	853	914 905 895 882 869	853	914 905 895 882 869	853	933 915 795 773 750	726	933 915 795 773 750	726	933 915 795 773 750	726	933 915 795 773 750	726	933 915 795 773 750	726	933 915 795 773 750	726
15	.65 .67 .68 .70 .71	.71	.72	.72	.73	.73	.72	.72	.72	.71	.70	.69	.68	.67	.67	.65	.64	.62	.60	.59	.57	.57
	879 899 918 930 941	950	957 961 962 961 958	953	947 938 928 916 902	887	947 938 928 916 902	887	867 843 829 808 785	761	867 843 829 808 785	761	867 843 829 808 785	761	867 843 829 808 785	761	867 843 829 808 785	761	867 843 829 808 785	761		
30	.68 .69 .71 .72 .73	.74	.74	.75	.75	.75	.74	.74	.73	.72	.71	.70	.69	.68	.66	.65	.63	.61	.59	.58	.57	.56
	910 929 946 960 971	980	987 990 992 991 988	984	977 969 959 947 934	919	977 969 959 947 934	919	899 881 862 841 818	794	899 881 862 841 818	794	899 881 862 841 818	794	899 881 862 841 818	794	899 881 862 841 818	794	899 881 862 841 818	794		
45	.70 .71 .73 .74 .75	.76	.76	.77	.77	.77	.76	.76	.76	.75	.75	.74	.73	.71	.71	.70	.69	.67	.65	.63	.61	.60
	939 957 974 987 998	007	*014*018*019*018*016*	0111	*005 997 987 976 963	948	*005 997 987 976 963	948	929 911 892 870 848	824	929 911 892 870 848	824	929 911 892 870 848	824	929 911 892 870 848	824	929 911 892 870 848	824	929 911 892 870 848	824		
1000	.72 .73 .75 .76 .77	.78	.78	.79	.79	.79	.79	.78	.78	.77	.77	.76	.75	.73	.73	.72	.70	.69	.67	.65	.63	.62
	964 963 959 012*023*032	*039*042*044*043*041*037	*039*042*044*043*041*037	*031*023*013*002	990	975	*031*023*013*002	990	975	956 939 919 898 875	851	956 939 919 898 875	851	956 939 919 898 875	851	956 939 919 898 875	851	956 939 919 898 875	851	956 939 919 898 875	851	
15	.73 .75 .76 .77 .78	.79	.80	.80	.80	.80	.80	.80	.80	.79	.78	.77	.76	.75	.75	.74	.72	.71	.69	.67	.65	.64
	987*005*021*034*045*054	*061*064*066*066*063*059	*061*064*066*066*063*059	*053*046*037*026*013	999	999	*053*046*037*026*013	999	980 962 943 922 899	875	980 962 943 922 899	875	980 962 943 922 899	875	980 962 943 922 899	875	980 962 943 922 899	875	980 962 943 922 899	875		
30	.75 .76 .78 .79 .80	.81	.81	.82	.82	.82	.82	.81	.81	.80	.79	.78	.77	.76	.75	.75	.74	.72	.71	.69	.67	.66
	*007*025*041*054*064*073	*080*084*085*085*083*079	*080*084*085*085*083*079	*074*066*057*047*034*020	*074*066*057*047*034*020	*074*066*057*047*034*020	*074*066*057*047*034*020	*001 984 964 943 921	896	*001 984 964 943 921	896	*001 984 964 943 921	896	*001 984 964 943 921	896	*001 984 964 943 921	896	*001 984 964 943 921	896	*001 984 964 943 921	896	
45	.76 .78 .79 .80 .81	.82	.83	.83	.83	.83	.83	.83	.82	.82	.81	.80	.79	.78	.78	.77	.75	.74	.72	.70	.68	.67
	*024*042*057*070*081*089	*096*100*102*102*100*096	*096*100*102*102*100*096	*091*084*075*065*053*039	*091*084*075*065*053*039	*091*084*075*065*053*039	*091*084*075*065*053*039	*020*002 983 962 939	914	*020*002 983 962 939	914	*020*002 983 962 939	914	*020*002 983 962 939	914	*020*002 983 962 939	914	*020*002 983 962 939	914	*020*002 983 962 939	914	
1100	.77 .79 .80 .81 .82	.83	.84	.84	.84	.84	.84	.84	.84	.83	.82	.81	.81	.79	.79	.78	.76	.75	.73	.71	.69	.68
	*037*055*070*083*094*0102	*110*114*116*116*114*111	*110*114*116*116*114*111	*105*099*090*080*068*054	*105*099*090*080*068*054	*105*099*090*080*068*054	*105*099*090*080*068*054	*035*013 99R 977 954	929													
15	.78 .79 .81 .82 .83	.84	.84	.85	.85	.85	.85	.85	.84	.84	.83	.82	.81	.80	.80	.80	.79	.77	.76	.74	.72	.70
	*048*065*081*093*104*113	*120*124*126*127*125*122	*120*124*126*127*125*122	*117*110*102*092*080*066	*117*110*102*092*080*066	*117*110*102*092*080*066	*117*110*102*092*080*066	*048*033*011 989 966	941	*048*033*011 989 966	941	*048*033*011 989 966	941	*048*033*011 989 966	941	*048*033*011 989 966	941	*048*033*011 989 966	941	*048*033*011 989 966	941	
30	.78 .80 .81 .82 .83	.84	.85	.86	.86	.86	.85	.85	.85	.84	.83	.82	.81	.81	.81	.81	.79	.77	.76	.75	.73	.71
	*055*073*088*101*111*120	*127*132*134*135*133*130	*127*132*134*135*133*130	*126*119*111*101*089*076	*126*119*111*101*089*076	*126*119*111*101*089*076	*126*119*111*101*089*076	*057*033*020 998 975	949	*057*033*020 998 975	949	*057*033*020 998 975	949	*057*033*020 998 975	949	*057*033*020 998 975	949	*057*033*020 998 975	949	*057*033*020 998 975	949	
45	.79 .80 .82 .83 .84	.84	.85	.86	.86	.86	.85	.85	.85	.84	.84	.83	.81	.81	.81	.81	.80	.79	.77	.75	.73	.71
	*059*077*092*105*115*124	*132*136*139*139*136*136	*132*136*139*139*136*136	*131*125*117*107*095*082	*131*125*117*107*095*082	*131*125*117*107*095*082	*131*125*117*107*095*082	*063*045*026*004 980	954	*063*045*026*004 980	954	*063*045*026*004 980	954	*063*045*026*004 980	954	*063*045*026*004 980	954	*063*045*026*004 980	954	*063*045*026*004 980	954	

MAY-AUG 54 N TABLE B-1 SOLAR PARAMETERS CCS Z X0 (W/MM*2.)

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					DATE					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
1200	.79	.80	.82	.83	.84	.85	.85	.86	.86	.86	.86	.86	.86	.85	.84	.83	.82	.80	.79	.77	.75	.73	.71	
	*060*077*092*105*116*125						*133*137*140*141*140*138							*133*127*119*110*098*085				*066*043*028*006				962 956		
15	.79	.80	.81	.83	.84	.84	.85	.86	.86	.86	.86	.86	.86	.85	.84	.83	.82	.80	.79	.77	.75	.73	.71	
	*058*075*090*103*114*123						*131*136*139*140*139*137							*133*127*119*109*098*084				*066*043*028*005				961 955		
30	.78	.80	.81	.82	.83	.84	.85	.86	.86	.86	.86	.86	.86	.85	.84	.83	.82	.80	.78	.77	.75	.73	.71	
	*052*069*084*097*108*118						*126*131*134*136*125*133							*129*123*116*106*095*081				*062*044*024*001				977 950		
45	.78	.79	.80	.81	.82	.83	.84	.85	.85	.85	.85	.85	.85	.85	.84	.83	.82	.81	.79	.78	.76	.74	.72	.70
	*043*061*076*089*100*109						*118*123*127*128*128*126							*122*117*109*100*088*075				*055*037*017				969 942		
1300	.77	.78	.79	.81	.82	.82	.83	.84	.84	.84	.84	.84	.84	.84	.83	.82	.81	.80	.79	.77	.75	.74	.71	.69
	*031*049*064*077*088*098						*107*112*116*118*118*116							*113*107*100*090*079*065				*046*027*006				983 958		
15	.76	.77	.78	.80	.81	.81	.82	.83	.83	.83	.83	.83	.83	.83	.82	.81	.80	.79	.78	.76	.74	.72	.70	.68
	*016*033*049*062*074*084						*093*098*102*104*105*103							*100*094*087*078*066*052				*033*014				993 969		
30	.74	.76	.77	.78	.79	.80	.81	.82	.82	.82	.82	.82	.82	.82	.81	.80	.79	.78	.76	.75	.73	.71	.69	.67
	998*015*031*044*056*066						*076*082*086*088*089*087							*084*079*071*062*050*036				*017				999 952		
45	.73	.74	.75	.77	.78	.79	.79	.80	.80	.81	.81	.81	.81	.81	.80	.79	.78	.77	.75	.73	.72	.70	.68	.65
	977 994*010*024*036*046						*056*062*067*069*070*069							*066*060*053*043*032*018				998 978 957 932 906 877						
1400	.71	.72	.74	.75	.76	.77	.78	.78	.79	.79	.79	.79	.78	.78	.77	.76	.75	.73	.72	.70	.68	.66	.63	
	953 970 986*000*013*023						*033*040*045*047*048*047							*044*039*032*022*010				976 955 934 909 882 853						
15	.69	.70	.72	.73	.74	.75	.76	.76	.77	.77	.77	.76	.76	.75	.74	.73	.72	.70	.68	.66	.64	.62	.60	
	926 944 960 974 987 997						*008*015*020*023*024*023							*020*015*008				951 931 909 884 856 826						
30	.67	.68	.70	.71	.72	.73	.74	.74	.75	.75	.75	.75	.75	.75	.74	.73	.72	.71	.69	.68	.66	.64	.62	.59
	896 914 931 945 958 969						980 987 993 996 997 996							994 988 981 971 959 945				924 903 880 855 827 797						
45	.64	.66	.67	.68	.70	.71	.72	.72	.73	.73	.73	.72	.72	.72	.71	.70	.69	.67	.65	.64	.62	.59	.57	
	864 882 899 914 927 939						950 957 963 966 968 967							964 959 952 942 930 915				894 873 850 824 795 764						

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MAY-AUG 54 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.)

NST	MAY										JUN										JUL										AUG									
	5	10	15	20	25	30	5	10	15	20	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
1500	.62	.63	.65	.66	.67	.68	.69	.70	.70	.71	.71	.71	.71	.71	.71	.71	.70	.70	.69	.68	.66	.65	.63	.61	.59	.57	.54	.61	.60	.59	.57	.54	.52							
	829	848	865	880	894	906	917	925	931	935	936	936	936	936	936	933	928	921	911	898	883	861	840	816	790	761	730	826	805	781	754	724	692							
15	.59	.60	.62	.63	.64	.65	.66	.67	.68	.68	.68	.68	.68	.68	.68	.68	.68	.67	.66	.65	.64	.62	.60	.59	.56	.54	.52	899	894	887	877	864	849							
	793	812	829	844	858	871	883	891	897	901	902	902	902	902	902	864	859	851	841	828	812	789	763	743	716	686	653	864	859	851	841	828	812							
30	.56	.58	.59	.60	.62	.63	.64	.64	.65	.65	.65	.65	.65	.65	.65	.65	.65	.64	.63	.62	.61	.59	.59	.56	.54	.51	.49	846	854	860	865	867	866							
	754	773	791	807	821	833	807	816	822	827	829	829	829	829	829	826	821	813	803	790	773	750	723	703	675	645	612	826	821	813	803	790	773							
45	.53	.55	.56	.57	.59	.60	.61	.61	.62	.62	.63	.63	.63	.63	.63	.62	.62	.61	.61	.60	.58	.56	.55	.53	.51	.48	.46	807	816	822	827	829	829							
	713	732	750	767	781	794	713	732	750	767	781	794	794	794	794	790	781	763	749	733	710	687	661	633	602	568	787	781	774	763	749	733								
1600	.50	.51	.53	.54	.56	.57	.58	.58	.59	.59	.60	.60	.60	.60	.60	.59	.59	.58	.58	.57	.55	.53	.52	.50	.47	.45	.42	725	734	741	746	748	748							
	670	690	709	725	740	754	767	776	783	787	789	789	789	789	789	746	740	732	722	708	691	667	644	618	589	558	524	746	740	732	722	708	691							
15	.47	.48	.50	.51	.52	.53	.55	.55	.56	.56	.57	.57	.57	.57	.57	.56	.56	.55	.54	.53	.52	.50	.49	.46	.44	.42	.39	682	691	699	704	706	706							
	626	646	665	682	698	711	725	734	741	746	748	748	748	748	748	703	698	690	679	665	648	623	600	573	544	512	477	753	752	751	750	749	748							
30	.43	.45	.46	.48	.49	.50	.51	.52	.53	.53	.53	.53	.53	.53	.53	.52	.52	.51	.50	.49	.47	.45	.43	.41	.38	.36	680	690	699	704	706	706								
	580	601	620	638	654	669	682	691	699	704	706	706	706	706	706	637	647	655	660	662	662	660	654	646	638	620	603	578	554	527	497	464	429							
45	.40	.41	.43	.44	.46	.47	.48	.49	.49	.50	.50	.50	.50	.50	.50	.50	.49	.49	.48	.47	.45	.43	.42	.39	.37	.35	.32	637	647	655	660	662	662							
	533	555	574	592	609	623	637	647	655	660	662	662	662	662	662	660	654	646	638	620	603	578	554	527	497	464	429	660	654	646	638	620	603							
1700	.36	.38	.39	.41	.42	.43	.45	.45	.46	.46	.47	.47	.47	.47	.47	.47	.46	.45	.44	.43	.42	.40	.33	.36	.34	.31	.28	592	602	610	615	618	618							
	485	507	527	546	562	577	592	602	610	615	618	618	618	618	618	615	610	601	589	575	557	532	507	479	449	416	381	570	564	555	543	528	510							
15	.33	.34	.36	.37	.39	.40	.41	.42	.43	.43	.43	.43	.43	.43	.43	.43	.43	.42	.41	.40	.38	.36	.34	.32	.30	.27	.25	437	459	480	499	516	531							
	388	410	431	451	468	484	499	510	518	524	526	526	526	526	526	524	518	509	496	481	463	436	411	382	351	317	281	518	510	518	524	526	526							
30	.29	.31	.32	.34	.35	.36	.38	.38	.39	.40	.40	.40	.40	.40	.40	.40	.39	.38	.37	.36	.35	.33	.31	.29	.26	.24	.21	499	510	518	524	526	526							
	338	361	383	402	420	436	452	463	471	477	480	480	480	480	480	477	471	462	449	433	415	389	362	333	301	267	230	477	471	462	449	433	415							

MAY-AUG 54 N TABLE 8-1 SOLAR PARAMETERS COS Z = 1.
X0 (W/M•••2.) *** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	DATE										AUG													
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15			
1800	.21	.23	.25	.27	.28	.29	.31	.32	.33	.33	.33	.33	.33	.32	.31	.30	.29	.28	.26	.23	.21	.19	.18	.13
2000	268	312	334	354	372	389	405	416	425	430	433	433	430	424	414	402	386	366	339	313	283	251	216	179
15	.18	.20	.21	.23	.24	.26	.27	.28	.29	.29	.29	.27	.29	.28	.27	.25	.24	.22	.20	.18	.15	.12	.10	
30	.14	.16	.18	.19	.21	.22	.31	.322	.331	.337	.340	.340	.336	.330	.320	.306	.290	.270	.241	.214	.184	.151	.115	.077
45	.10	.12	.14	.16	.17	.19	.264	.276	.285	.291	.294	.293	.290	.283	.273	.259	.242	.222	.193	.165	.135	.101	.065	.027
1900	.07	.09	.11	.12	.14	.15	.16	.17	.18	.19	.19	.19	.18	.18	.17	.16	.15	.13	.11	.09	.06	.04	.01	.00
20	092	117	141	163	183	201	218	230	239	245	248	248	244	237	226	212	195	174	145	117	086	052	016	000
15	.03	.05	.07	.09	.10	.12	.13	.14	.15	.15	.15	.15	.15	.15	.14	.13	.11	.10	.07	.05	.03	.00	.00	.00
30	.00	.02	.04	.05	.07	.08	.10	.11	.11	.12	.12	.12	.12	.11	.10	.09	.08	.08	.04	.02	.00	.00	.00	.00
45	.00	.00	.00	.02	.04	.05	.07	.07	.08	.09	.09	.09	.08	.08	.07	.06	.04	.03	.01	.00	.00	.00	.00	.00
2000	.00	.00	.00	.00	.01	.02	.045	.057	.066	.072	.075	.074	.070	.062	.050	.035	.016	.000	.000	.000	.000	.000	.000	.000
15	.00	.00	.00	.00	.00	.00	.005	.017	.027	.033	.035	.034	.023	.021	.009	.000	.000	.000	.000	.000	.000	.000	.000	.000
30	.00	.00	.00	.00	.00	.00	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
45	.00	.00	.00	.00	.00	.00	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

TABLE B-1 SOLAR PARAMETERS CGS Z
X0 (W/M**2.)
*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					NOV					DEC					
	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	30
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
0600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
30	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
45	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
0600	.10	.08	.06	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
141	112	082	052	021	000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
15	.14	.12	.10	.08	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
192	164	134	104	073	042	.010	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
30	.18	.16	.14	.12	.09	.07	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
243	215	186	156	125	094	.062	.029	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
45	.22	.20	.18	.15	.13	.11	.08	.06	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
294	266	237	207	177	145	.113	.081	.048	.014	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
0700	.26	.23	.21	.19	.17	.14	.12	.10	.07	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	
344	316	287	258	227	196	.164	.131	.098	.065	.031	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
15	.29	.27	.25	.23	.20	.18	.16	.13	.11	.08	.06	.03	.01	.00	.00	.00	.00	.00	.00	.00	
393	366	337	307	277	245	.213	.180	.147	.114	.083	.046	.007	.000	.000	.000	.000	.000	.000	.000	.000	
30	.33	.31	.28	.26	.24	.22	.19	.17	.14	.12	.09	.07	.01	.02	.00	.00	.00	.00	.00	.00	
441	414	385	356	325	294	.261	.229	.195	.161	.127	.094	.054	.022	.000	.000	.000	.000	.000	.000	.000	
45	.36	.32	.30	.27	.25	.23	.20	.18	.15	.13	.10	.07	.05	.03	.01	.00	.00	.00	.00	.00	
488	461	432	403	372	341	.308	.275	.241	.207	.173	.139	.099	.067	.036	.007	.000	.000	.000	.000	.000	.000

SEP-DEC 54 N TABLE B-1 SOLAR PARAMETERS $\cos Z_{X_0}$ ($w/m^{+2}.$)

*** SIGNIFIES COS Z^{-1} .
ADD 1000 TO VALUES PRECEDED BY *

NST	SEP					OCT					NOV					DEC							
	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
08000	.40	.37	.35	.33	.31	.28	.26	.23	.21	.18	.16	.13	.10	.08	.06	.04	.02	.00	.00	.00	.00	.00	.00
	533	508	478	448	417	386	353	320	286	252	217	183	143	111	80	50	023	000	000	003	000	000	000
15	.43	.41	.38	.36	.34	.31	.29	.26	.24	.21	.19	.16	.13	.11	.09	.07	.05	.03	.01	.00	.00	.00	.00
	577	550	521	492	461	429	396	363	329	294	260	225	185	152	121	092	065	040	019	003	000	000	000
30	.46	.44	.42	.39	.37	.34	.32	.29	.27	.24	.22	.19	.16	.14	.12	.09	.07	.06	.04	.03	.02	.01	.01
	618	591	563	533	502	470	437	404	369	335	300	265	225	192	161	131	104	080	058	043	026	016	009
45	.49	.47	.44	.42	.40	.37	.35	.32	.30	.27	.24	.22	.19	.16	.14	.12	.10	.08	.07	.06	.05	.04	.03
	658	631	602	573	542	509	476	442	408	373	338	303	262	229	198	169	141	117	096	073	064	054	048
09000	.52	.49	.47	.45	.42	.40	.37	.35	.32	.30	.27	.24	.21	.19	.17	.15	.13	.11	.09	.08	.07	.06	.06
	695	668	640	610	578	546	513	479	444	409	373	338	297	264	233	204	176	152	131	113	100	090	084
15	.54	.52	.50	.47	.45	.42	.40	.37	.35	.32	.29	.27	.24	.21	.19	.17	.15	.13	.12	.10	.09	.09	.08
	730	703	674	644	613	580	547	512	477	442	406	371	330	297	265	236	209	185	164	147	133	124	119
30	.57	.54	.52	.50	.47	.45	.42	.40	.37	.34	.32	.29	.26	.23	.21	.19	.17	.15	.14	.13	.12	.11	.11
	763	735	706	676	644	612	578	543	508	472	437	401	360	327	295	266	239	215	194	177	164	155	150
45	.59	.57	.54	.52	.49	.47	.44	.42	.39	.36	.34	.31	.28	.25	.23	.21	.19	.17	.16	.15	.14	.13	.13
	792	765	736	705	673	640	606	571	536	502	464	428	387	354	322	293	266	242	222	205	192	184	179
10000	.61	.59	.56	.54	.51	.49	.46	.43	.41	.38	.35	.33	.30	.27	.25	.23	.21	.19	.18	.16	.15	.15	.15
	819	792	762	732	699	666	632	596	560	524	483	453	411	378	346	317	291	267	247	230	218	210	208
15	.63	.60	.58	.56	.53	.50	.48	.45	.42	.40	.37	.34	.31	.29	.26	.24	.22	.21	.19	.18	.17	.16	.16
	843	815	786	755	722	689	654	618	582	546	510	474	432	399	363	338	312	289	269	253	241	233	231
30	.64	.62	.60	.57	.54	.52	.49	.46	.44	.41	.38	.35	.32	.30	.28	.25	.24	.22	.20	.19	.18	.18	.18
	864	836	806	775	742	708	673	637	601	564	528	492	450	417	386	357	330	307	288	272	260	253	250
45	.65	.63	.61	.58	.56	.53	.50	.48	.45	.42	.39	.36	.33	.31	.29	.27	.25	.23	.22	.20	.19	.19	.19
	882	854	824	792	759	724	689	653	616	579	543	507	465	432	400	372	346	323	303	288	277	270	268

TABLE B-1 SOLAR PARAMETERS $\cos^2 \chi_0$ (W/M²*2.)

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

NST	SEP					OCT					NOV					DEC							
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30	
1100	.67	.64	.62	.59	.57	.54	.51	.48	.46	.43	.40	.37	.34	.32	.29	.27	.25	.24	.22	.21	.20	.20	
897	869	838	806	772	737	702	665	628	591	554	518	476	443	412	383	358	335	316	301	290	284	282	285
15	.67	.65	.63	.60	.57	.55	.52	.49	.46	.43	.41	.38	.35	.32	.30	.28	.26	.24	.23	.22	.21	.21	.21
908	879	849	816	782	747	711	674	637	600	563	526	484	451	420	392	366	344	326	311	301	295	294	297
30	.68	.66	.63	.61	.58	.55	.52	.49	.47	.44	.41	.38	.35	.33	.30	.28	.27	.25	.24	.23	.22	.21	.22
916	887	856	823	789	753	717	680	642	605	567	531	489	456	425	397	372	350	332	313	308	303	302	305
45	.68	.66	.63	.61	.58	.55	.52	.50	.47	.44	.41	.38	.35	.32	.31	.28	.27	.25	.24	.23	.22	.22	.22
921	891	860	826	792	756	719	682	644	606	569	533	491	458	427	399	374	353	335	321	312	307	307	311
1200	.68	.66	.63	.61	.58	.55	.52	.50	.47	.44	.41	.38	.35	.33	.30	.28	.27	.25	.24	.23	.22	.22	.22
922	892	860	827	791	755	718	680	642	604	567	531	489	456	425	398	373	352	335	321	313	308	308	313
15	.68	.66	.63	.61	.58	.55	.52	.49	.46	.43	.41	.38	.35	.32	.30	.28	.26	.25	.24	.23	.22	.22	.22
921	890	857	823	788	751	714	675	637	599	562	525	483	451	420	393	369	348	331	313	310	306	307	312
30	.68	.65	.63	.60	.57	.54	.52	.49	.46	.43	.40	.37	.34	.32	.29	.27	.26	.24	.23	.22	.21	.22	.22
915	884	851	817	781	744	706	667	629	590	553	516	475	442	412	385	361	341	324	312	304	301	302	307
45	.67	.65	.62	.59	.57	.54	.51	.48	.45	.42	.39	.36	.33	.31	.29	.27	.25	.23	.22	.21	.21	.21	.21
906	875	842	807	770	733	694	656	617	578	541	504	463	430	400	374	350	330	314	302	295	292	294	300
1300	.66	.64	.61	.58	.56	.53	.50	.47	.44	.41	.38	.35	.32	.30	.28	.26	.24	.23	.21	.21	.20	.20	.20
895	862	829	793	756	718	680	641	602	563	525	489	447	415	386	359	336	316	301	290	283	280	282	289
15	.65	.63	.60	.57	.54	.51	.48	.45	.42	.39	.37	.34	.31	.28	.26	.24	.23	.21	.20	.19	.19	.19	.19
879	847	812	776	739	701	662	623	583	545	507	470	429	397	368	341	319	299	284	274	267	265	268	275
30	.64	.61	.59	.56	.53	.50	.47	.44	.41	.38	.35	.32	.29	.27	.25	.23	.21	.20	.19	.19	.18	.18	.18
861	828	793	757	719	680	641	601	562	523	485	449	407	376	346	321	298	280	265	255	249	247	250	258
45	.62	.60	.57	.54	.51	.48	.45	.42	.39	.36	.33	.31	.27	.25	.23	.21	.20	.18	.17	.17	.16	.16	.17
839	806	770	734	695	656	617	577	537	498	460	424	383	351	322	297	275	257	242	233	227	226	230	238

TABLE B-1 SOLAR PARAMETERS COS Z = 1.
 X0 (N/M = 2.) ** SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY *

NST	SEP					OCT					NOV					DEC				
	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25
1400	.60	.58	.55	.52	.49	.46	.43	.40	.37	.34	.31	.29	.26	.23	.21	.19	.18	.16	.15	.15
815	781	745	708	669	629	569	549	509	470	432	366	355	324	295	270	249	231	217	208	202
15	.58	.56	.53	.50	.47	.44	.41	.38	.35	.32	.29	.26	.23	.21	.19	.17	.16	.14	.13	.13
787	753	717	679	640	600	559	519	479	440	402	358	325	294	265	241	220	202	189	169	175
30	.58	.53	.51	.48	.45	.42	.38	.35	.32	.29	.27	.24	.21	.19	.17	.15	.13	.12	.12	.13
757	722	685	647	607	567	527	486	446	406	363	332	292	261	233	209	188	171	158	153	146
45	.54	.51	.48	.45	.42	.39	.36	.33	.30	.27	.24	.21	.18	.16	.14	.12	.11	.10	.11	.11
724	689	651	613	573	532	491	450	410	371	333	297	255	226	198	174	154	137	125	117	114
1500	.51	.48	.45	.42	.39	.36	.33	.30	.27	.24	.21	.19	.16	.14	.12	.10	.08	.07	.06	.07
889	853	815	576	535	494	453	412	372	332	294	258	218	188	161	137	117	101	889	881	879
15	.48	.46	.43	.40	.36	.33	.30	.27	.24	.21	.18	.16	.13	.11	.09	.07	.06	.04	.03	.04
651	615	576	537	496	454	413	372	331	292	254	218	178	148	121	98	078	063	051	044	043
30	.45	.43	.40	.36	.33	.30	.27	.24	.21	.18	.15	.13	.10	.08	.06	.04	.03	.02	.01	.01
611	574	535	495	454	412	371	329	288	249	211	176	136	106	80	57	037	022	011	004	004
45	.42	.39	.36	.33	.30	.27	.24	.21	.18	.15	.12	.09	.07	.05	.03	.01	.00	.00	.00	.00
569	532	492	452	410	368	326	285	244	204	167	131	092	062	036	014	000	000	000	000	000
1600	.39	.36	.33	.30	.27	.24	.20	.17	.14	.11	.09	.06	.03	.01	.00	.00	.00	.00	.00	.00
525	487	448	407	365	322	280	238	198	158	121	055	046	017	000	000	000	000	000	000	000
15	.36	.33	.30	.27	.23	.20	.17	.14	.11	.08	.05	.03	.00	.00	.00	.00	.00	.00	.00	.00
480	441	401	360	318	275	233	191	150	110	073	038	000	000	000	000	000	000	000	000	000
30	.32	.29	.26	.23	.20	.17	.13	.10	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00
433	394	353	311	269	226	184	142	101	061	024	000	000	000	000	000	000	000	000	000	000
45	.29	.26	.22	.19	.16	.13	.10	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
385	345	304	262	219	176	134	991	651	011	000	000	000	000	000	000	000	000	000	000	000

TABLE B-1 SOLAR PARAMETERS COS Z =1.
X0 (W/M**2.) *** SIGNIFIES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					NOV					DEC						
	5	10	15	20	30	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30
1700	.25	.22	.19	.16	.12	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	335	295	254	212	169	125	082	040	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.21	.18	.15	.12	.09	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	285	245	203	160	117	074	031	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.17	.14	.11	.08	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	234	194	152	109	65	022	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.14	.11	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	183	142	100	56	013	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
1800	.10	.07	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	132	090	048	004	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	080	038	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	029	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

SEP-DEC 54 N TABLE B-1 SOLAR PARAMETERS COS Z XC (W/M**2.) *** SIGNIFIES COS Z *1.
ADD 1000 TO VALUES PRECEDED BY *

∴ SIGNIFIES $\cos Z = 1$.
ADD 1000 TO VALUES PRECEDED BY .

COS. 2
X0 (W/M_x*2.)

TABLE B-

JAN-APR

PREVIOUS PAGE
IS BLANK

INST	1	5	10	15	20	25	30	DATE						APR					
								5	10	15	20	25	30	5	10	15	20	25	30
0700	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.07	.10	.13	.16	.19
	000	000	000	000	000	000	000	000	000	000	000	000	000	055	076	139	181	224	265
15	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	.00	.00	.00	.03	.11	.14	.17	.20	.23
	000	000	000	000	000	000	000	000	007	045	000	000	000	102	150	193	235	277	319
30	.00	.00	.00	.00	.00	.00	.00	.00	.02	.04	.00	.00	.00	.12	.15	.18	.21	.24	.27
	000	000	000	000	000	000	000	000	024	060	058	000	000	162	203	245	268	330	371
45	.00	.00	.00	.00	.00	.00	.00	.01	.03	.05	.08	.11	.013	043	076	112	150	214	
	000	000	000	000	000	000	000	000	000	000	000	000	000	214	255	297	339	381	421
0800	.00	.00	.00	.00	.00	.01	.02	.04	.07	.09	.12	.14	.062	093	126	162	200	264	
	000	000	000	000	000	000	007	030	062	093	126	162	200	264	306	347	389	430	471
15	.00	.00	.00	.01	.01	.02	.04	.06	.08	.10	.12	.15	.18	110	141	174	211	249	313
	000	001	008	019	035	054	077	099	111	133	166	198	221	156	187	221	257	286	360
30	.03	.03	.04	.05	.06	.07	.09	.041	.044	.052	.063	.079	.099	123	156	187	221	257	360
	082	086	094	106	122	143	167	200	232	266	302	341	405	446	487	528	568	607	652
45	.06	.06	.07	.08	.09	.10	.12	.14	.17	.19	.22	.24	.200	232	266	302	341	405	446
	0900	.09	.09	.09	.10	.12	.13	.15	.17	.20	.22	.25	.27	242	274	308	345	383	447
15	.11	.11	.12	.13	.14	.16	.18	.20	.22	.25	.28	.30	.282	314	348	385	424	487	528
	158	162	171	184	201	222	247	282	314	348	385	424	319	351	386	423	461	525	566
30	.14	.14	.15	.16	.17	.18	.20	.23	.25	.28	.30	.33	.319	351	386	423	461	525	566
	192	196	205	219	237	259	284	319	351	386	423	461	353	386	421	458	496	560	600
45	.16	.16	.17	.18	.19	.21	.23	.25	.27	.30	.33	.36	.353	386	421	458	496	560	600

JAN-APR 52 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.) * ADD 1000 TO VALUES PRECEDED BY *

** SIGNIFIES COS Z = 1.

MST	1	5	10	15	20	25	30	DATE						APR					
								JAN			FEB			MAR			APR		
								5	10	15	20	25	5	10	15	20	25	30	
1000	.18	.19	.20	.21	.23	.25		.27	.30	.32	.35	.38	.43	.46	.49	.52	.54	.57	
251	256	267	281	300	323	349		385	418	453	490	528	592	.632	.672	.711	.749	.786	
15	.20	.22	.23	.25	.27			.29	.32	.34	.37	.40	.45	.43	.51	.54	.56	.59	
277	282	293	308	328	351	377		413	446	482	519	557	620	.660	.710	.739	.777	.813	
30	.21	.22	.24	.25	.27	.29		.31	.34	.36	.39	.42	.45	.49	.52	.55	.58	.61	
299	305	316	332	352	375	402		439	472	507	545	593	646	.636	.725	.764	.801	.837	
45	.23	.24	.25	.26	.28	.30		.33	.35	.38	.41	.43	.48	.51	.54	.57	.60	.62	
318	325	337	353	373	397	424		461	494	530	567	606	668	.708	.747	.785	.822	.857	
1100	.24	.25	.26	.28	.29	.31		.34	.37	.39	.42	.45	.49	.52	.55	.58	.61	.64	
334	341	353	370	391	415	443		480	514	549	587	625	687	.726	.765	.803	.839	.875	
15	.25	.25	.26	.27	.29	.31	.33	.35	.38	.40	.43	.46	.51	.53	.56	.59	.62	.65	
347	354	367	384	405	430	458		496	529	565	602	641	703	.742	.780	.817	.854	.888	
30	.25	.26	.27	.28	.30	.31	.33	.36	.39	.41	.44	.47	.51	.54	.57	.60	.63	.65	
356	364	377	395	417	442	470		508	542	577	615	653	715	.753	.791	.828	.864	.898	
45	.26	.26	.27	.28	.30	.32	.34	.37	.39	.42	.45	.47	.52	.55	.58	.61	.63	.66	
362	370	384	402	424	450	478		516	550	585	623	662	723	.761	.799	.836	.871	.905	
1200	.26	.27	.29	.30	.32	.34		.37	.40	.42	.45	.48	.52	.55	.58	.61	.64	.66	
364	373	388	406	428	454	483		521	556	591	629	667	725	.768	.803	.840	.874	.908	
15	.26	.26	.27	.29	.30	.32	.34	.37	.40	.42	.45	.48	.52	.55	.58	.61	.64	.66	
364	372	387	406	429	455	484		523	557	593	630	668	725	.767	.814	.850	.874	.907	
30	.25	.26	.27	.29	.30	.32	.34	.37	.40	.42	.45	.48	.52	.55	.58	.61	.63	.66	
359	368	384	403	426	453	482		521	555	591	628	666	726	.764	.801	.836	.870	.903	
45	.25	.26	.27	.28	.30	.32	.34	.37	.39	.42	.45	.47	.52	.55	.57	.60	.63	.65	
351	361	377	397	420	447	476		515	550	586	623	660	720	.757	.794	.829	.863	.895	

JAN-APR 52 N TABLE 8-1 SOLAR PARAMETERS COS Z = 1.

COS Z (W/R**2.) X0

= 1 SIGNIFIES COS Z = 1.
ACD 1000 TO VALUES PRECEDED BY .

MST	DATE											
	1	5	10	15	20	25	30	5	10	15	20	25
1300	.24	.25	.26	.27	.29	.31	.33	.36	.39	.41	.44	.47
340	350	367	387	410	437	467	506	541	576	613	651	710
15	.23	.24	.25	.26	.28	.30	.32	.35	.38	.40	.43	.46
326	336	353	373	397	425	455	493	528	564	601	633	697
30	.22	.23	.24	.25	.27	.29	.31	.34	.36	.39	.42	.45
308	319	336	357	381	408	438	477	512	548	584	621	683
45	.20	.21	.22	.24	.26	.28	.30	.33	.35	.38	.40	.43
287	298	315	337	361	389	419	458	492	528	565	601	660
1400	.19	.19	.21	.22	.24	.26	.28	.31	.33	.36	.39	.41
263	274	292	313	338	366	396	435	470	505	541	578	636
15	.17	.18	.19	.20	.22	.24	.26	.29	.32	.34	.37	.40
236	248	266	287	312	340	370	409	444	479	515	552	609
30	.15	.15	.17	.18	.20	.22	.24	.27	.30	.32	.35	.37
206	218	236	258	283	311	341	380	415	450	486	522	579
45	.12	.13	.14	.16	.18	.20	.22	.25	.27	.30	.32	.35
173	185	204	226	251	279	309	348	383	418	453	489	546
1500	.10	.11	.12	.14	.15	.17	.20	.22	.25	.27	.30	.33
138	150	169	191	216	244	275	314	348	383	418	454	510
15	.07	.08	.09	.11	.13	.15	.17	.20	.22	.25	.27	.30
100	113	132	154	179	207	238	276	310	345	380	416	472
30	.04	.05	.07	.08	.10	.12	.14	.17	.19	.22	.24	.27
060	073	092	114	140	168	198	236	270	304	340	375	431
45	.01	.02	.04	.05	.07	.09	.11	.14	.16	.19	.21	.24
018	031	050	072	098	126	156	194	227	262	297	332	387

JAN-APR N TABLE 8-1 SOLAR PARAMETERS COS Z X0 (W/M**2.)

*1 SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	DATE										APR										
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
1600	.00	.00	.00	.02	.04	.06	.08	.11	.13	.16	.18	.21	.25	.27	.30	.32	.34	.37	.39	.41	
	000	000	000	028	054	081	111	150	183	217	252	286	341	375	408	440	471	501	536	563	
15	.00	.00	.00	.00	.01	.03	.05	.07	.10	.12	.15	.17	.21	.24	.26	.28	.31	.33	.36	.38	
	000	000	000	000	000	008	035	065	103	136	170	214	239	294	327	360	392	423	453	488	515
30	.00	.00	.00	.00	.00	.00	.01	.04	.06	.09	.11	.14	.18	.20	.22	.25	.27	.29	.32	.34	
	000	000	000	000	000	000	017	055	088	121	153	190	244	273	310	342	373	403	438	465	
45	.00	.00	.00	.00	.00	.00	.00	.00	.03	.05	.08	.10	.14	.16	.19	.21	.23	.26	.28	.30	
	000	000	000	000	000	000	000	005	038	071	1C5	139	193	226	259	291	322	352	387	415	
1700	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.06	.10	.13	.15	.17	.20	.22	.25	.27	
	000	000	000	000	000	000	000	000	000	020	053	087	141	174	207	238	269	300	335	363	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.06	.09	.11	.13	.16	.18	.21	.23	
	000	000	000	000	000	000	000	000	000	000	000	034	087	120	153	186	216	246	281	310	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.07	.09	.12	.14	.17	.19	
	000	000	000	000	000	000	000	000	000	000	000	000	033	066	098	130	161	192	227	256	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	.05	.08	.10	.13	.15	
	000	000	000	000	000	000	000	000	000	000	000	000	000	011	043	075	106	137	173	202	
1800	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.06	.09	.11	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	051	082	118	147	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.027	.063	.093	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	122	150	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	039	053	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	044	072	

JAN-APR 52 N TABLE B-1 SOLAR PARAMETERS $\cos Z = 1$
 $A_0 (W/m^2 \cdot 2)$ ADD 1000 TO VALUES PRECEDED BY *

*** SIGNIFIES $\cos Z = 1$.

NST	DATE																					
	1	5	10	15	JAN	20	25	30	FEB	5	10	15	20	25	30	5	10	15	20	25	30	
										5	10	15	20	25	30	5	10	15	20	25	30	
1900 .00																						
1800 .00																						
1700 .00																						
30 .00																						
45 .00																						

JAN-APR 52 N TABLE B-1 SOLAR PARAMETERS CGS Z X0 (W/t=-*2.) *-* SIGNIFIES COS Z = 1.
DD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					JUL					AUG							
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30	
0400	.00	.00	.00	.00	.01	.02	.03	.03	.03	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
0400	000	000	000	000	014	027	034	037	037	034	027	018	005	000	000	000	000	000	000	000	000	000	
15	.00	.00	.02	.03	.04	.05	.06	.06	.06	.05	.05	.04	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	
15	000	000	004	025	043	058	071	077	081	080	077	070	061	048	033	016	000	000	000	000	000	000	
30	.00	.02	.04	.05	.07	.08	.09	.09	.09	.09	.09	.08	.07	.06	.05	.03	.02	.00	.00	.00	.00	.00	
30	000	026	051	072	089	104	116	122	125	121	115	105	093	078	061	041	020	000	000	000	000	000	
45	.04	.06	.07	.09	.10	.11	.12	.13	.13	.13	.12	.11	.11	.09	.08	.07	.05	.03	.01	.00	.00	.00	
45	048	075	099	119	137	150	162	168	171	171	167	160	151	139	124	107	088	067	039	015	000	000	
0500	.07	.09	.11	.13	.14	.15	.16	.16	.16	.16	.16	.15	.14	.13	.12	.10	.09	.07	.06	.03	.01	.00	
0500	098	124	148	168	185	198	210	216	218	217	214	207	198	185	171	154	135	115	088	064	039	000	
15	.11	.13	.15	.16	.18	.19	.19	.20	.20	.20	.19	.19	.18	.17	.15	.14	.12	.10	.03	.07	.05	.01	
15	149	175	198	218	234	247	258	264	266	265	261	255	245	233	219	202	184	164	138	114	090	010	
30	.15	.17	.19	.20	.21	.22	.23	.24	.24	.23	.23	.22	.21	.20	.19	.18	.16	.16	166	141	116	063	
30	200	226	249	268	284	296	307	312	314	313	310	303	294	282	268	252	233	214	239	215	183	142	116
45	.19	.21	.22	.24	.25	.26	.27	.27	.27	.27	.27	.26	.25	.24	.23	.21	.20	.18	.15	.14	.13	.09	
45	252	277	300	318	334	346	356	361	363	362	358	352	342	331	317	301	283	264	239	215	183	142	116
0600	.23	.25	.26	.28	.29	.30	.31	.31	.31	.30	.30	.29	.28	.27	.25	.24	.22	.22	.18	.17	.15	.13	
0600	304	329	351	369	384	396	406	411	412	411	407	401	391	350	356	351	334	315	290	251	221	195	169
15	.27	.28	.30	.31	.33	.34	.34	.35	.35	.34	.34	.33	.32	.31	.30	.29	.28	.26	.24	.22	.20	.17	
15	356	381	402	420	434	446	455	460	461	460	456	450	441	428	416	401	384	365	341	320	273	248	223
30	.30	.32	.34	.35	.36	.37	.38	.38	.39	.38	.38	.37	.36	.35	.34	.33	.31	.30	.28	.24	.23	.21	
30	408	432	453	470	484	495	504	509	510	509	505	498	490	476	465	451	434	416	392	371	349	326	301
45	.34	.36	.38	.39	.40	.41	.42	.42	.42	.42	.41	.41	.40	.39	.38	.37	.35	.33	.32	.30	.28	.25	
45	459	483	503	520	534	544	553	557	559	557	553	538	527	515	500	484	466	443	422	400	378	354	329

MAY-AUG 52 N TABLE B-1 SOLAR PARAMETERS COS Z Y₀ (W/X**2.) ** SIGNIFIES COS Z = 1 ADD 1000 TO VALUES PRECEDED BY .

MST	MAY					JUN					JUL					AUG								
	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30		
0700	.38	.40	.41	.43	.44	.45	.45	.46	.46	.45	.45	.44	.43	.41	.40	.39	.37	.33	.34	.32	.30	.28		
	510	533	552	569	582	593	601	605	606	601	595	58	56	56	54	53	516	493	47	45	429	405	381	
15	.42	.43	.45	.46	.47	.48	.49	.49	.49	.49	.49	.47	.46	.45	.44	.43	.41	.33	.35	.36	.34	.32		
	560	582	601	617	630	640	649	652	653	652	649	63	62	61	59	58	565	542	523	52	479	456	432	
30	.45	.47	.48	.50	.51	.52	.52	.53	.53	.52	.52	.51	.51	.50	.49	.47	.46	.44	.43	.41	.40	.38		
	608	630	649	664	677	687	695	698	699	699	698	680	670	662	64	629	613	591	571	551	529	506	482	
45	.49	.50	.52	.53	.54	.55	.56	.56	.56	.56	.55	.55	.54	.53	.52	.51	.50	.48	.46	.45	.43	.41	.40	
	655	677	695	710	723	732	740	743	744	743	739	733	72	71	70	69	68	638	613	592	577	555	531	
0800	.52	.54	.55	.56	.58	.58	.59	.59	.59	.59	.59	.58	.57	.56	.55	.54	.53	.51	.50	.48	.47	.45	.43	
	701	722	740	755	767	776	783	787	787	786	782	777	76	759	746	735	721	705	684	66	65	624	602	578
15	.55	.57	.58	.60	.61	.61	.62	.62	.63	.63	.62	.62	.61	.61	.60	.59	.58	.56	.55	.53	.52	.50	.48	
	745	765	783	797	809	818	825	828	829	828	822	819	811	802	79	778	764	748	728	713	690	669	647	624
30	.58	.60	.62	.63	.64	.64	.65	.65	.66	.66	.65	.65	.64	.63	.62	.61	.60	.58	.55	.55	.53	.52	.50	
	787	807	824	838	849	858	865	868	869	868	864	859	852	842	832	819	806	790	770	752	733	712	690	667
45	.61	.63	.64	.66	.67	.67	.68	.68	.68	.68	.68	.68	.67	.67	.66	.65	.64	.63	.61	.60	.58	.56	.55	
	826	846	863	877	888	896	903	906	907	906	902	897	890	881	871	859	845	831	811	793	774	753	732	709
0900	.64	.66	.67	.68	.69	.70	.71	.71	.71	.71	.71	.70	.69	.69	.68	.67	.65	.64	.62	.61	.59	.58	.56	
	864	883	899	913	924	932	939	942	943	942	933	933	927	913	903	896	883	869	849	832	813	792	771	748
15	.67	.68	.70	.71	.72	.73	.73	.74	.74	.73	.73	.72	.72	.71	.70	.69	.68	.67	.65	.64	.62	.60	.58	
	899	918	934	947	958	966	973	976	977	975	972	967	951	942	931	918	904	885	863	849	829	807	784	
30	.69	.71	.72	.73	.74	.75	.76	.76	.76	.76	.76	.76	.75	.74	.73	.72	.71	.69	.68	.66	.65	.63	.61	
	931	950	965	978	989	997	994	997	998	997	996	995	995	975	964	951	937	919	902	883	863	841	818	
45	.71	.73	.74	.75	.76	.77	.78	.78	.78	.78	.78	.78	.77	.77	.76	.75	.74	.73	.71	.70	.68	.67	.65	
	961	979	994	007	018	026	032	035	036	035	023	026	*022	014	005	924	982	968	950	933	914	894	873	850

TABLE B-1 SOLAR PARAMETERS COS Z X0 (W, N=**2.) *** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MAY-AUG 52 N

MST	MAY					JUN					JUL					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15			
1000	.73	.75	.76	.77	.78	.79	.80	.80	.80	.80	.80	.80	.79	.79	.78	.77	.76	.75	.74	.72	.69	.67	.65	
	988*008*021*033*044*051		*058*061*062*062*059*055		*043*041*052*022*010 996								978	961	942	923	901	878						
15	.75	.77	.78	.79	.80	.81	.81	.82	.82	.82	.82	.81	.81	.91	.90	.79	.78	.77	.75	.74	.73	.71	.69	.67
	*012*029*044*057*067*074		*081*084*085*085*083*073		*073*056*057*046*035*021								003	003	004	048	927	903						
30	.77	.78	.80	.81	.81	.82	.83	.83	.83	.83	.83	.83	.83	.82	.81	.81	.80	.79	.77	.76	.74	.73	.71	.69
	*033*050*064*077*087*095		*101*104*106*105*103*099		*094*067*076*068*057*043								026	003	031	971	949	926						
45	.78	.80	.81	.82	.83	.84	.84	.85	.85	.85	.84	.84	.84	.83	.82	.81	.80	.79	.77	.76	.74	.72	.70	
	*050*067*082*094*104*112		*118*122*123*123*121*117		*112*105*097*087*076*063								045	025	015	990	968	945						
1100	.79	.81	.82	.83	.84	.85	.85	.86	.86	.86	.86	.85	.85	.84	.83	.82	.81	.80	.78	.77	.75	.73	.71	
	*065*081*096*106*118*125		*132*136*137*137*136*132		*127*121*113*103*092*079								061	041	025	006	984	960						
15	.80	.81	.83	.84	.85	.85	.86	.86	.87	.87	.87	.86	.86	.86	.85	.84	.83	.82	.81	.79	.78	.76	.74	.72
	*076*092*106*118*128*136		*143*147*149*149*147*144		*139*133*125*116*104*092								074	057	039	019	996	973						
30	.81	.82	.83	.84	.85	.86	.87	.87	.87	.87	.87	.87	.87	.86	.85	.84	.83	.82	.81	.80	.79	.77	.75	.73
	*083*100*114*126*136*144		*151*155*157*157*156*153		*148*142*134*125*114*101								084	067	049	028*006	981							
45	.81	.82	.84	.85	.85	.86	.87	.87	.88	.88	.88	.87	.87	.86	.85	.84	.83	.82	.81	.79	.77	.75	.73	
	*088*104*118*130*140*148		*155*159*161*162*161*158		*154*153*151*151*150*148								090	073	055	034*011	987							
1200	.81	.82	.84	.85	.86	.86	.87	.87	.88	.88	.88	.88	.87	.87	.86	.86	.85	.84	.82	.81	.79	.77	.76	.74
	*089*105*119*131*141*149		*156*161*163*164*163*161		*157*155*153*154*123*111								093	075	057	036*014	989							
15	.81	.82	.83	.84	.85	.86	.87	.87	.88	.88	.88	.88	.87	.87	.86	.86	.85	.84	.82	.81	.79	.77	.76	.73
	*086*102*116*128*139*147		*154*159*162*163*162*160		*150*153*153*154*123*111								093	073	057	036*012	987							
30	.80	.82	.83	.84	.85	.86	.86	.87	.87	.87	.87	.87	.87	.87	.86	.85	.84	.83	.82	.80	.79	.77	.75	.73
	*080*096*110*123*133*141		*149*154*157*159*158*156		*152*147*140*131*120*107								089	072	053	031*008	982							
45	.80	.81	.82	.83	.84	.85	.86	.86	.87	.87	.87	.87	.86	.86	.85	.84	.83	.82	.81	.80	.78	.77	.75	.72
	*071*087*101*114*124*133		*141*146*149*150*150*156		*142*140*133*124*113*100								082	065	045	023*000	974							

MAY-AUG 52 N TABLE B-1 SCALAR PARAMETERS COS Z = 1
 A0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					DATE					AUG					
	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20
1300 *058*074-089*101*112*121	.79	.80	.81	.82	.83	.84	.85	.86	.86	.86	.86	.85	.85	.84	.83	.82	.81	.74	.77	.76	.74
15 *042*059*073*086*097*106	.77	.79	.80	.81	.82	.83	.84	.85	.85	.85	.85	.84	.84	.84	.83	.82	.81	.70	.76	.75	.73
30 *023*040*054*067*078*088	.76	.77	.79	.80	.81	.82	.93	.83	.84	.84	.84	.93	.83	.83	.82	.81	.80	.69	.77	.75	.71
45 *001*018*032*045*057*066	.74	.76	.77	.78	.79	.80	.81	.82	.82	.82	.82	.81	.82	.82	.81	.80	.78	.67	.75	.74	.70
1400 376 993*008*021*033*042	.73	.74	.75	.76	.77	.78	.79	.80	.80	.81	.81	.79	.80	.80	.79	.79	.77	.66	.74	.72	.68
15 948 965 980 993*005*016	.70	.72	.73	.74	.75	.76	.77	.78	.79	.79	.79	.77	.78	.78	.77	.76	.75	.63	.72	.70	.68
30 917 934 949 963 975 986	.68	.70	.71	.72	.73	.74	.75	.76	.76	.77	.77	.76	.76	.75	.75	.74	.73	.61	.63	.66	.63
45 883 900 916 930 943 954	.66	.67	.68	.70	.71	.72	.73	.73	.74	.74	.74	.73	.74	.73	.72	.71	.70	.59	.67	.65	.61
1500 847 864 881 895 908 919	.63	.64	.66	.67	.68	.69	.70	.71	.72	.72	.72	.72	.71	.71	.70	.69	.68	.56	.64	.63	.58
15 808 826 843 858 871 883	.60	.62	.63	.64	.65	.66	.67	.68	.69	.69	.69	.69	.69	.68	.67	.66	.65	.53	.62	.60	.58
30 767 786 803 818 832 844	.57	.59	.60	.61	.62	.63	.64	.65	.66	.66	.66	.66	.66	.65	.64	.63	.62	.50	.59	.57	.52
45 724 743 761 776 790 803	.54	.55	.57	.58	.59	.60	.61	.62	.63	.63	.63	.63	.62	.61	.60	.59	.57	.47	.54	.52	.49

MAY-AUG 52 N TABLE B-1 SOLAR PARAMETERS $\cos^2 x_0 (w/m^2)$ *** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

NST	MAY										JUN										DATE										AUG													
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30														
1600	.51	.52	.54	.55	.56	.57	.58	.59	.60	.60	.60	.60	.60	.60	.60	.60	.60	.60	.59	.58	.57	.56	.54	.52	.50	.48	.46	.43	.720	.693	.673	.645	.615	.582										
	680	699	717	733	747	760	773	782	789	793	796	796	793	793	793	793	793	793	789	781	771	758	743	575	653	628	599	569	535															
15	.47	.49	.50	.51	.53	.54	.55	.56	.57	.57	.57	.57	.57	.57	.57	.57	.57	.56	.56	.55	.54	.53	.51	.43	.47	.45	.42	.40																
	633	653	671	688	703	716	729	738	745	750	753	753	751	746	738	728	715	699	684	693	701	706	708	709	705	701	653	623	669	653	629	605	591	552	521	487								
30	.44	.45	.47	.48	.49	.50	.52	.52	.53	.53	.54	.54	.53	.53	.53	.53	.53	.52	.52	.50	.49	.47	.46	.47	.46	.47	.46	.45	.44	.42	.40	.38	.35	.33										
45	.40	.42	.43	.44	.46	.47	.48	.49	.49	.50	.50	.50	.48	.48	.47	.47	.46	.46	.45	.45	.44	.43	.42	.41	.40	.39	.38	.37	.36	.35	.34	.33	.32	.31	.29									
	537	557	576	594	609	623	638	647	655	660	663	663	663	661	655	647	637	623	606	661	655	647	637	623	606	582	553	532	503	471	437													
1700	.36	.38	.39	.41	.42	.43	.44	.45	.46	.46	.47	.47	.46	.46	.46	.46	.46	.46	.45	.44	.43	.42	.41	.40	.39	.38	.37	.36	.35	.34	.33	.32	.31	.29										
	486	507	527	545	561	575	590	600	608	613	616	616	614	609	600	589	575	558	553	503	453	421	386																					
15	.32	.34	.36	.37	.38	.40	.41	.42	.42	.43	.43	.43	.43	.43	.42	.42	.42	.41	.40	.38	.36	.35	.34	.36	.35	.32	.30	.28	.25															
	436	457	477	495	512	527	542	552	560	565	565	569	563	561	552	541	527	509	484	455	432	402	369	334																				
37	.29	.30	.32	.33	.35	.36	.37	.38	.38	.39	.39	.39	.39	.39	.39	.39	.39	.38	.38	.37	.36	.35	.35	.33	.31	.29	.26	.24	.21															
	384	406	426	445	462	477	493	503	511	517	520	520	516	512	504	492	477	459	433	401	351	350	317	281																				
45	.25	.26	.28	.30	.31	.32	.33	.34	.35	.35	.36	.36	.35	.35	.35	.35	.35	.34	.34	.33	.32	.31	.30	.29	.27	.25	.22	.20	.17															
	332	354	375	395	412	428	444	454	463	468	471	472	469	463	454	442	427	409	383	357	329	298	264	228																				
1800	.21	.23	.24	.26	.27	.28	.30	.31	.31	.32	.32	.32	.30	.31	.31	.30	.28	.27	.26	.25	.23	.22	.21	.20	.19	.18	.16	.13																
	280	303	324	344	362	378	394	405	414	419	423	423	420	414	405	393	377	358	332	305	277	245	211	174																				
15	.17	.19	.20	.22	.23	.25	.26	.27	.28	.28	.28	.28	.26	.25	.25	.25	.25	.24	.23	.22	.21	.19	.17	.15	.13	.11	.08	.05																
	228	251	273	293	312	328	345	356	365	375	374	374	371	355	343	327	308	280	251	225	193	158	121																					
30	.13	.15	.17	.18	.20	.21	.22	.23	.23	.24	.24	.25	.22	.21	.21	.21	.21	.20	.20	.20	.20	.19	.18	.17	.16	.13	.11	.09	.07	.04	.01													
45	.09	.11	.13	.14	.16	.17	.19	.20	.20	.21	.21	.21	.19	.20	.20	.20	.20	.19	.19	.18	.17	.16	.13	.11	.09	.07	.04	.01																
	125	149	172	193	212	229	247	258	267	273	276	276	273	267	257	243	227	207	203	178	151	121	088	053	015																			

MAY-AUG 52 N TABLE B-1 SOLAR PARAMETERS $\cos^2 \chi_0$ ($\chi_0 = m + 2$)
¹¹⁴ SIGNIFIES $\cos^2 Z = 1$.
ADD 1000 TO VALUES PRECEDED BY .

NST	MAY										JUN										JUL										AUG									
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30										
1900	.06	.07	.09	.11	.12	.14	.15	.16	.17	.17	.17	.17	.16	.15	.13	.12	.11	.10	.09	.05	.03	.00	.00	.128	.131	.070	.037	.001	.000											
	074	099	122	144	164	181	199	210	219	226	229	228	225	218	208	195	178	157																						
15	.02	.04	.06	.07	.09	.10	.11	.12	.13	.14	.14	.14	.13	.13	.12	.11	.10	.08	.06	.01	.02	.00	.00	.06	.05	.023	.000	.000	.000											
	025	050	074	096	116	133	151	163	172	179	182	181	178	171	160	146	129	108	079	051	.023	.000	.000	.000																
30	.00	.00	.02	.04	.05	.07	.08	.09	.10	.10	.10	.10	.10	.09	.09	.08	.06	.05	.02	.00	.00	.00	.00	.00	.031	.022	.020	.000	.000											
	000	002	026	049	069	087	105	117	126	133	136	135	131	124	113	099	081	060																						
45	.00	.00	.00	.00	.02	.03	.05	.06	.06	.07	.07	.07	.07	.07	.06	.05	.04	.03	.01	.00	.00	.00	.00	.00	.00	.000	.000	.000	.000	.000										
	000	000	000	003	023	042	060	072	082	088	091	090	089	079	073	068	053	035	014																					
2000	.00	.00	.00	.00	.00	.00	.01	.02	.03	.03	.04	.04	.03	.03	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00										
	050	000	000	000	000	000	017	029	038	045	047	047	042	035	023	009	000	000																						
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00										
	000	000	000	000	000	000	000	000	000	003	003	005	000	000	000	000	000	000																						
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00										
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000																						
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00										
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000																						

MAY-AUG 52 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.) *** SIGNIFIES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					NOV					DEC				
	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.06	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0600	.10	.08	.06	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
137	110	081	052	023	000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.14	.12	.10	.08	.06	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.18	.16	.14	.12	.10	.08	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.22	.20	.18	.16	.14	.11	.09	.07	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0700	.26	.24	.22	.20	.18	.15	.13	.11	.08	.06	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00
350	324	296	266	235	209	178	146	114	082	049	017	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.30	.28	.26	.24	.21	.19	.17	.14	.12	.10	.07	.05	.02	.00	.00	.00	.00	.00	.00	.00
30	.34	.32	.29	.27	.25	.23	.20	.18	.16	.13	.11	.08	.06	.03	.01	.00	.00	.00	.00	.00
45	.37	.35	.33	.31	.29	.26	.24	.22	.19	.17	.14	.12	.09	.07	.05	.03	.01	.00	.00	.00
501	475	448	420	390	360	325	297	264	231	193	155	126	094	062	035	008	000	.00	.00	.00

SEP-DEC 52 N TABLE B-1 SOLAR PARAMETERS CJS Z X0 (N/m**2.)

*** SIGNIFIES COS Z = 1.
*** TD TO TC VALUES PRECEDED BY +

MST	SEP					OCT					NOV					DEC						
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30
0800	.41	.39	.37	.34	.32	.30	.27	.25	.23	.20	.19	.15	.12	.10	.08	.06	.04	.02	.01	.00	.00	.00
	549	523	495	467	438	407	376	344	311	278	245	211	172	140	109	080	054	029	008	005	000	000
15	.44	.42	.40	.38	.36	.33	.31	.28	.26	.23	.21	.18	.15	.13	.11	.09	.07	.05	.04	.02	.01	.00
	594	568	541	513	483	453	421	389	356	323	293	255	216	184	153	124	097	073	051	033	013	007
30	.47	.45	.43	.41	.39	.36	.34	.31	.29	.26	.24	.21	.19	.16	.14	.12	.10	.08	.07	.05	.04	.03
	636	612	585	556	527	496	464	432	398	365	331	297	257	225	194	165	138	114	093	075	050	043
45	.50	.48	.46	.44	.42	.39	.37	.34	.32	.29	.27	.24	.21	.19	.16	.14	.12	.10	.09	.07	.06	.06
	679	653	626	598	563	537	505	472	439	405	371	337	297	264	233	204	177	153	132	113	100	084
0900	.53	.51	.49	.47	.45	.42	.40	.37	.35	.32	.29	.27	.24	.22	.19	.17	.15	.14	.12	.11	.10	.09
	716	692	665	636	607	575	543	510	476	442	406	374	334	301	270	241	214	190	169	151	137	128
15	.56	.54	.52	.50	.47	.45	.42	.40	.37	.35	.32	.29	.25	.24	.22	.20	.18	.16	.14	.13	.12	.11
	755	729	701	673	643	611	579	545	511	477	442	408	364	335	304	275	248	224	203	186	172	163
30	.59	.56	.54	.52	.50	.47	.45	.42	.39	.37	.34	.32	.29	.26	.24	.22	.20	.18	.17	.15	.14	.13
	789	763	735	706	676	644	611	578	544	509	474	440	393	366	335	306	260	256	235	213	205	196
45	.61	.59	.57	.54	.52	.49	.47	.44	.42	.39	.36	.34	.31	.28	.26	.24	.22	.20	.19	.18	.16	.16
	820	794	766	737	706	674	641	607	573	538	503	468	427	395	364	335	303	284	264	247	235	226
1000	.63	.61	.59	.56	.54	.51	.49	.46	.43	.41	.38	.36	.33	.30	.28	.26	.24	.22	.21	.19	.18	.18
	848	822	794	764	733	701	668	633	599	562	529	493	453	426	389	360	334	310	290	271	251	249
15	.65	.63	.60	.58	.56	.53	.50	.48	.45	.42	.39	.37	.34	.32	.29	.27	.25	.24	.22	.21	.20	.19
	873	847	818	788	757	725	691	657	621	583	551	510	475	442	411	382	356	333	313	297	285	275
30	.66	.64	.62	.60	.57	.55	.52	.49	.47	.44	.41	.38	.35	.33	.31	.29	.27	.25	.24	.23	.22	.21
	905	868	840	810	778	745	711	676	641	605	570	534	493	461	430	401	375	352	333	317	305	298
45	.68	.66	.63	.61	.58	.56	.53	.50	.48	.45	.42	.40	.37	.34	.32	.30	.28	.26	.25	.24	.22	.22
	914	887	853	827	795	762	728	693	657	621	585	550	502	476	445	417	391	369	350	334	323	316

SEP-DEC 52 N TABLE B-1 SOLAR PARAMETERS CGS Z X0 (W/IC=*.2.) * SIGNIFIES CCS Z = 1.
** 1000 TO VALUES PRECEDED BY *

NST	DATE										DEC											
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10		
1100	.69	.67	.64	.62	.59	.57	.54	.51	.49	.46	.43	.40	.37	.35	.33	.31	.29	.27	.26	.25	.24	
	929	902	873	842	809	776	741	706	670	633	597	552	521	483	456	429	404	382	363	349	331	
15	.70	.68	.65	.63	.60	.58	.55	.52	.49	.46	.44	.41	.52	.497	.465	.438	.413	.391	373	354	341	
	941	913	884	852	820	786	751	715	679	642	606	571									344	
30	.70	.68	.66	.63	.61	.58	.55	.52	.50	.47	.44	.41	.31	.35	.34	.32	.30	.28	.27	.25	.25	
	950	922	891	860	827	792	757	721	684	647	611	576	534	502	472	444	419	397	379	365	353	
45	.71	.69	.66	.64	.61	.58	.55	.53	.50	.47	.44	.42	.33	.35	.34	.32	.30	.28	.27	.25	.25	
	955	926	896	864	830	795	759	723	686	649	613	577	536	504	473	446	421	400	383	363	359	
1200	.71	.69	.66	.64	.61	.58	.55	.53	.50	.47	.44	.41	.34	.36	.34	.32	.30	.28	.27	.25	.25	
	956	927	896	854	830	794	758	721	684	647	611	575	531	502	472	444	420	399	382	361	356	
15	.71	.68	.66	.63	.61	.58	.55	.52	.49	.46	.44	.41	.52	.496	.466	.439	.415	.395	378	365	354	
	954	925	893	850	826	790	754	716	679	642	605	569									360	
30	.70	.68	.65	.63	.60	.57	.54	.52	.49	.46	.43	.40	.37	.35	.33	.31	.29	.28	.26	.25	.25	
	949	919	887	853	818	782	745	708	670	633	593	560	519	.587	.458	.431	.407	.387	371	352	348	
45	.70	.67	.65	.62	.59	.56	.54	.51	.48	.45	.42	.39	.33	.34	.32	.30	.28	.26	.25	.24	.25	
	939	909	877	843	807	771	732	696	658	620	582	547	507	.475	.446	.419	.395	.376	361	349	339	
1300	.69	.66	.64	.61	.58	.55	.52	.50	.47	.44	.41	.38	.31	.33	.31	.29	.27	.25	.24	.23	.24	
	927	896	863	829	793	756	718	680	642	604	567	524	491	.459	.426	.404	.381	.362	347	335	327	329
15	.68	.65	.62	.60	.57	.54	.51	.48	.45	.42	.39	.37	.34	.32	.29	.28	.26	.24	.23	.22	.23	
	911	879	846	811	775	738	693	661	623	585	549	512	471	.443	.411	.385	.363	.344	330	314	311	314
30	.66	.64	.61	.59	.55	.52	.49	.46	.44	.41	.38	.35	.32	.30	.28	.26	.24	.22	.21	.21	.21	
	892	860	826	790	754	716	677	639	600	562	525	492	44	.417	.383	.354	.342	.323	309	292	264	296
45	.65	.62	.59	.56	.54	.51	.49	.45	.42	.39	.36	.33	.30	.28	.26	.24	.23	.21	.19	.19	.20	
	869	837	802	766	729	691	652	613	574	536	499	463	423	.382	.354	.329	.317	.299	266	275	270	282

TABLE B-1 SOLAR PARAMETERS COS²(N) AND SIGNIFICANT CDS² VALUES PRECEDED BY . AND 1000 TC VALUES

MST	SEP					OCT					NOV					DEC								
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30		
1400	.63	.60	.57	.54	.51	.49	.46	.43	.40	.37	.34	.31	.29	.26	.24	.22	.21	.19	.18	.13	.17	.16	.18	
	844	810	776	739	701	663	624	584	545	507	470	434	394	363	335	311	290	272	259	253	245	249	258	
15	.60	.58	.55	.52	.49	.46	.43	.40	.37	.34	.32	.29	.25	.24	.22	.20	.18	.17	.16	.15	.15	.16	.18	
	815	781	746	709	671	632	592	552	513	475	438	402	362	332	304	280	259	242	230	221	217	217	222	231
30	.58	.55	.53	.50	.47	.44	.41	.38	.35	.32	.29	.26	.24	.21	.19	.18	.16	.15	.14	.13	.13	.14	.14	
	783	749	713	676	637	598	558	518	478	440	402	367	323	297	270	246	226	210	197	189	186	191	200	
45	.56	.53	.50	.47	.44	.41	.38	.35	.32	.29	.26	.24	.21	.18	.17	.15	.14	.12	.12	.11	.11	.11	.12	
	749	714	678	640	601	561	521	480	441	402	365	330	293	263	234	210	190	174	162	155	152	153	158	168
1500	.53	.50	.47	.44	.41	.38	.35	.32	.29	.26	.23	.21	.18	.16	.14	.12	.11	.10	.09	.03	.08	.09	.09	
	712	676	639	601	561	521	481	441	401	362	325	280	251	221	194	171	152	136	125	113	115	117	122	132
15	.50	.47	.44	.41	.38	.35	.32	.29	.26	.23	.20	.18	.20	.15	.13	.11	.09	.07	.06	.05	.05	.06	.06	
	672	636	599	560	520	479	439	398	358	320	283	248	203	179	153	130	111	096	085	079	075	078	084	094
42	.47	.44	.41	.38	.35	.32	.29	.26	.23	.20	.17	.15	.12	.10	.08	.06	.05	.04	.03	.03	.03	.03	.04	
	630	594	556	517	476	435	394	354	314	275	236	203	164	135	109	887	669	554	043	037	035	037	044	054
45	.44	.41	.38	.35	.32	.29	.25	.22	.19	.17	.14	.11	.09	.05	.05	.03	.02	.01	.00	.00	.00	.00	.01	
	586	549	511	471	430	389	348	307	267	228	191	157	116	859	654	442	024	010	000	003	000	000	001	012
1600	.40	.37	.34	.31	.28	.25	.22	.19	.16	.13	.10	.08	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	
	540	503	464	424	383	341	300	259	219	180	143	109	070	042	017	000	000	000	000	003	000	000	000	
15	.37	.34	.31	.28	.24	.21	.18	.15	.12	.09	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	493	455	415	375	333	292	250	209	169	130	993	059	021	000	000	000	000	000	000	003	000	000	000	
30	.33	.30	.27	.24	.21	.18	.15	.11	.09	.06	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	443	405	365	324	282	240	199	157	117	09	042	008	000	000	000	000	000	000	000	000	000	000	000	
45	.29	.26	.23	.20	.17	.14	.11	.08	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	393	354	314	272	230	198	146	105	65	026	000	000	000	000	000	000	000	000	000	000	000	000	000	

SEP-DEC 52 N TABLE B-1 SOLAR PARAMETERS CJS Z X0 (W/N**2.) ADD 1000 TO VALUES PRECEDED BY *

*** SIGNIFIES COS Z = 1.

MST	SEP					OCT					NOV					DEC				
	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25
1700	.25	.22	.19	.16	.13	.10	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	341	302	261	220	177	135	093	051	011	000	000	000	000	000	000	000	000	000	000	000
15	.21	.18	.15	.12	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	269	249	208	166	123	881	038	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.18	.14	.11	.08	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	235	195	154	112	69	26	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.14	.10	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	182	141	100	57	014	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
1800	.10	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	128	887	045	002	300	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.06	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	074	033	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	020	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

TABLE B-1 SOLAR PARAMETERS CGS Z = 1.
X0 ($W_m^2 \cdot 2.$)

1-- SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

MST	JAN					FEB					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	
1000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.052	
1500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.05	.08	
2000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.039	.073	
2500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.07	.10	
3000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.013	.058	.094	
3500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.11	.16	
4000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.036	.075	.114	
4500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.150	.184	.214	
5000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.170	.206	.239	
5500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.133	.170	.269	
6000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.111	.141	.171	
6500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.119	.122	.124	
7000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.150	.193	.227	
7500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.208	.243	.283	
8000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.15	.18	.21	
8500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.23	.26	.28	
9000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.264	.302	.339	
9500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.373	.404	.433	
10000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.396	.435	.471	
10500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.461	.513	.552	
11000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.584	.613	.640	

JAN-APR 50 N TABLE B-1 SOLAR PARAMETERS COS Z =¹
Y0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY

PREVIOUS PAGE
IS BLANK

C

MST	DATE										DATE													
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30					
0800	.00	.00	.00	.00	.01	.02	.04	.06	.08	.11	.13	.15	.20	.23	.26	.30	.33	.36	.39	.42	.44	.47	.49	.51
0800	000	000	000	001	015	034	056	087	117	149	185	222	285	325	365	407	447	487	532	563	602	633	662	688
15	.02	.02	.03	.04	.05	.06	.08	.10	.12	.14	.17	.20	.24	.27	.30	.33	.36	.39	.43	.45	.48	.50	.52	.54
030	032	038	049	064	083	105	137	167	200	235	273	335	376	417	457	497	536	581	617	650	681	709	734	
30	.05	.06	.06	.07	.08	.09	.11	.13	.15	.18	.20	.23	.28	.31	.34	.37	.40	.43	.46	.49	.51	.54	.56	.58
075	077	084	095	111	130	153	185	216	249	284	322	384	425	465	506	545	584	628	663	695	726	753	778	
45	.08	.09	.09	.10	.11	.12	.14	.16	.19	.21	.24	.26	.31	.31	.37	.40	.43	.46	.49	.52	.54	.57	.59	.61
118	120	128	140	155	175	199	231	262	295	331	369	431	471	512	552	591	629	673	707	739	769	796	820	
0900	.11	.11	.12	.13	.14	.15	.17	.20	.22	.24	.27	.30	.34	.37	.40	.43	.46	.49	.52	.55	.57	.60	.62	.64
158	161	169	182	198	218	242	275	306	340	376	413	476	516	556	596	635	672	715	749	781	810	836	860	
15	.14	.14	.15	.16	.17	.18	.20	.23	.25	.27	.30	.33	.37	.40	.43	.46	.49	.52	.55	.58	.63	.66	.69	
196	200	208	221	238	259	283	317	348	382	413	455	518	558	597	637	675	712	755	783	813	848	874	897	
30	.16	.17	.17	.18	.20	.21	.23	.25	.28	.30	.33	.35	.40	.43	.46	.49	.52	.55	.58	.63	.65	.67	.69	
231	236	245	258	275	296	321	355	387	421	457	495	557	597	636	675	713	750	792	825	855	883	908	931	
45	.19	.19	.20	.21	.22	.24	.25	.28	.30	.33	.35	.38	.43	.46	.49	.52	.54	.57	.60	.63	.65	.68	.70	.71
264	269	278	292	310	331	357	391	423	457	493	531	593	633	672	711	748	785	826	853	888	915	940	963	
1000	.21	.21	.22	.23	.24	.26	.28	.30	.32	.35	.38	.40	.45	.48	.51	.54	.57	.59	.63	.65	.68	.70	.72	.74
294	299	309	323	341	363	389	424	456	491	527	564	627	666	705	743	780	816	857	883	918	945	969	991	
15	.23	.23	.24	.25	.26	.28	.30	.32	.35	.37	.40	.43	.47	.50	.53	.56	.59	.62	.65	.67	.69	.72	.74	.75
320	326	336	351	370	392	418	454	486	521	557	595	657	696	734	772	809	844	884	915	944	971	995	*016	
30	.24	.25	.26	.27	.28	.30	.32	.34	.37	.39	.42	.45	.48	.52	.55	.58	.61	.63	.66	.69	.73	.75	.77	
344	349	361	376	395	418	445	480	513	548	584	622	683	722	760	798	834	869	909	933	968	994	*017	*038	
45	.26	.26	.27	.28	.30	.31	.33	.36	.38	.41	.43	.46	.51	.54	.57	.59	.62	.65	.68	.70	.73	.75	.77	.78
364	370	382	397	417	441	468	504	536	571	608	645	707	745	783	820	856	891	929	963	988	013	*036	*057	

JAN-APR 50 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.) ** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	DATE										APR													
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30					
1100	.27	.27	.28	.29	.31	.33	.35	.37	.40	.42	.45	.48	.52	.55	.58	.61	.64	.66	.69	.72	.74	.76	.78	.80
380	387	399	416	436	460	487	523	556	591	626	665	726	765	802	839	874	908	947	975	004	029	052	072	
15	.28	.28	.29	.30	.32	.34	.36	.38	.41	.43	.46	.49	.53	.56	.59	.62	.65	.67	.70	.73	.75	.77	.79	.80
393	401	413	430	451	475	503	540	573	608	644	682	743	781	818	854	889	923	960	970	017	042	064	084	
30	.29	.29	.30	.31	.33	.35	.37	.39	.42	.44	.47	.50	.54	.57	.60	.63	.65	.68	.71	.73	.75	.77	.79	.81
403	411	424	441	463	487	515	552	586	621	657	695	755	793	830	866	900	932	971	979	025	050	073	092	
45	.29	.30	.31	.32	.33	.35	.37	.40	.42	.45	.48	.50	.55	.58	.61	.63	.66	.69	.71	.74	.76	.78	.80	.81
409	417	431	449	471	496	524	561	595	630	666	704	764	801	838	873	908	940	977	000	032	056	078	097	
1200	.29	.30	.31	.32	.34	.35	.38	.40	.43	.45	.48	.51	.55	.58	.61	.64	.66	.69	.72	.74	.76	.78	.80	.81
412	420	435	453	475	501	529	567	600	635	672	709	769	806	842	877	911	943	979	007	033	057	079	098	
15	.29	.30	.31	.32	.34	.36	.38	.40	.43	.45	.48	.51	.55	.58	.61	.64	.66	.69	.72	.74	.76	.78	.80	.81
411	420	435	453	476	502	530	568	602	637	673	710	770	807	843	877	911	943	978	005	032	055	076	096	
30	.29	.29	.31	.32	.34	.35	.37	.40	.43	.45	.48	.51	.55	.58	.61	.63	.66	.68	.71	.73	.75	.77	.79	.81
406	416	431	450	473	499	528	566	600	635	671	708	767	804	839	874	907	938	973	001	026	049	071	090	
45	.28	.29	.30	.31	.33	.35	.37	.40	.42	.45	.48	.50	.55	.57	.60	.63	.65	.68	.71	.73	.75	.77	.78	.80
398	408	424	443	467	493	522	560	594	629	665	702	761	797	832	866	899	930	965	992	017	040	061	089	
1300	.27	.28	.29	.31	.32	.34	.36	.39	.42	.44	.47	.50	.54	.57	.59	.62	.64	.67	.70	.72	.74	.76	.78	.79
387	397	413	433	456	483	512	551	585	620	656	692	751	786	821	855	887	918	953	979	004	027	048	067	
15	.26	.27	.28	.30	.31	.33	.35	.38	.41	.43	.46	.49	.53	.56	.58	.61	.63	.66	.69	.71	.73	.75	.76	.78
372	382	399	419	443	470	499	537	571	607	642	679	737	772	807	840	872	902	937	963	034	010	031	050	
30	.25	.26	.27	.28	.30	.32	.34	.37	.40	.42	.45	.47	.52	.54	.57	.60	.62	.64	.67	.69	.71	.73	.75	.76
353	364	381	401	425	453	482	521	555	590	625	662	719	754	788	822	853	883	917	943	014	090	011	030	
45	.23	.24	.25	.27	.29	.31	.33	.36	.38	.41	.43	.46	.50	.53	.55	.58	.60	.63	.65	.68	.71	.73	.75	.76
331	342	360	381	405	432	462	500	534	569	605	641	699	723	757	799	831	861	894	920	015	067	088	097	

JAN-APR 50 N

TABLE B-1

SOLAR PARAMETERS

CCS Z
X0 (n, m = 2.)** SIGNIFIES CCS Z = 1.
** 1000 TO VALUES PRECEDED BY .

NST	JAN					FEB					MARCH					APR									
	1	5	10	15	20	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30			
1400	.22	.24	.25	.27	.29	.31	.34	.36	.39	.42	.44	.48	.51	.54	.56	.59	.61	.63	.65	.68	.69	.71	.73		
	306	317	335	356	381	408	438	477	511	545	581	617	673	708	741	774	805	834	868	894	918	941	961	980	
15	.20	.22	.23	.25	.27	.29	.32	.34	.37	.40	.42	.46	.49	.52	.54	.56	.59	.61	.63	.65	.67	.69	.71		
	278	289	307	329	354	381	411	450	483	518	553	589	645	679	713	745	776	805	838	861	883	911	932	951	
30	.17	.18	.20	.21	.23	.25	.27	.30	.32	.35	.37	.40	.41	.47	.49	.52	.54	.56	.59	.61	.63	.65	.66	.68	
	247	258	277	298	323	351	381	419	453	486	523	558	614	646	681	713	743	772	805	831	855	878	899	918	
45	.15	.16	.17	.19	.21	.23	.25	.27	.30	.32	.35	.38	.42	.44	.47	.49	.51	.54	.56	.58	.60	.62	.64	.65	
	212	225	243	265	290	318	348	386	420	454	489	524	579	613	646	677	708	737	770	793	820	842	863	883	
1500	.12	.13	.15	.16	.18	.20	.22	.25	.27	.30	.32	.35	.39	.41	.44	.46	.49	.51	.53	.55	.57	.59	.61	.63	
	176	188	207	229	254	282	311	350	383	417	452	487	542	575	608	639	669	698	731	757	781	804	825	845	
15	.10	.11	.12	.13	.15	.17	.19	.22	.25	.27	.29	.32	.36	.39	.41	.43	.46	.48	.50	.52	.54	.56	.58	.60	
	136	149	168	190	215	243	273	311	344	378	412	447	501	535	567	598	628	657	690	715	740	763	784	804	
30	.07	.08	.09	.11	.12	.14	.16	.19	.22	.24	.26	.29	.33	.35	.36	.40	.43	.45	.47	.49	.51	.53	.55	.56	
	994	107	126	148	174	201	231	269	302	336	370	404	458	491	524	555	585	613	646	672	695	719	741	761	
45	.04	.05	.06	.07	.09	.11	.13	.16	.18	.21	.23	.26	.30	.32	.35	.37	.39	.41	.44	.45	.48	.50	.51	.53	
	550	663	682	105	130	157	187	225	258	291	325	359	413	446	478	509	539	567	600	623	650	674	696	716	
1600	.00	.01	.03	.04	.06	.08	.10	.13	.15	.17	.20	.22	.26	.29	.31	.33	.36	.38	.40	.42	.44	.46	.48	.50	
	664	697	017	036	059	084	111	141	178	211	244	278	312	365	398	430	460	490	519	552	573	602	626	648	669
15	.00	.00	.00	.01	.03	.05	.07	.09	.12	.14	.16	.19	.23	.25	.27	.30	.32	.34	.37	.39	.41	.43	.44	.46	
	660	690	000	000	011	036	063	093	130	162	195	229	262	315	343	379	410	440	469	501	523	553	576	599	620
30	.00	.00	.00	.00	.00	.01	.03	.06	.08	.10	.13	.15	.19	.21	.24	.26	.28	.30	.33	.35	.37	.39	.41	.42	
	660	690	000	000	000	000	014	043	080	112	145	178	211	264	296	328	358	388	417	450	475	501	525	548	570
45	.00	.00	.00	.00	.00	.00	.00	.02	.04	.07	.09	.11	.15	.18	.20	.22	.24	.26	.29	.31	.33	.35	.37	.38	
	660	690	000	000	000	000	000	028	060	092	125	158	210	243	274	305	334	363	396	423	448	473	496	518	

JAN-APR 50 N

TABLE B-1

SOLAR PARAMETERS COS Z = 1.
X0 (W/M**2.)*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	JAN					FEB					DATE					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30	
1700	.00	.00	.00	.00	.00	.00	.00	.00	.03	.05	.07	.11	.14	.16	.18	.20	.23	.25	.27	.29	.31	.33	.35		
	000	000	000	000	000	000	000	000	006	038	071	104	156	188	219	250	279	308	342	369	394	419	443	465	
15	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	.07	.10	.12	.14	.16	.18	.21	.23	.25	.27	.29	.31			
	000	000	000	000	000	000	000	000	000	016	048	100	132	163	194	223	252	286	313	339	365	389	412		
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.05	.08	.10	.12	.14	.17	.19	.21	.23	.25	.27			
	000	000	000	000	000	000	000	000	000	000	043	075	106	137	167	196	230	257	284	309	334	357			
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.06	.08	.10	.13	.15	.17	.19	.21	.22			
	000	000	000	000	000	000	000	000	000	000	000	017	048	079	109	139	173	201	228	254	279	303			
1800	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.04	.06	.09	.11	.13	.15	.17	.18			
	000	000	000	000	000	000	000	000	000	000	000	000	021	051	081	116	144	171	198	223	248				
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.04	.05	.08	.10	.12	.14				
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	023	058	087	115	142	168	193				
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.02	.04	.06	.08	.10			
	000	000	000	000	000	000	000	000	000	000	000	000	030	060	090	001	030	058	086	113	138				
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.04	.06				
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000			
1900	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02		
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000		
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000		
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000		
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000		

JAN-APR 50 N TABLE B-1 SOLAR PARAMETERS $COS^2 Z_{W/H_{**2}}(W/m^2)$ *** SIGNIFIES $COS^2 Z$
ADD 1000 TO VALUES PRECEDED BY .

MST	MAY										JUN										DATE										AUG											
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30																		
0400	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
15	.00	.00	.00	.01	.02		.03	.04	.04	.04	.03		.03	.02	.01	.00	.00	.00		.00	.00	.00	.00	.00		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
30	.00	.00	.02	.04	.05	.06	.07	.07	.08	.08	.07	.07	.06	.05	.04	.03	.01	.00		.00	.00	.00	.00		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
45	.02	.04	.06	.07	.09	.10	.11	.11	.11	.11	.10		.10	.09	.08	.06	.05	.03		.01	.00	.00	.00		.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
0500	.06	.08	.10	.11	.13	.14	.14	.15	.15	.15	.14		.13	.13	.11	.10	.09	.07		.05	.04	.02	.00		.05	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
15	.10	.12	.14	.15	.16	.17	.18	.19	.19	.19	.18		.17	.16	.15	.14	.13	.11		.09	.07	.06	.04		.12	.11	.10	.08	.06	.04		.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	
30	.14	.16	.18	.19	.20	.21	.22	.22	.23	.22	.22		.21	.20	.19	.18	.16	.15		.13	.11	.10	.08		.17	.15	.12	.10	.08	.06		.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	
45	.18	.20	.22	.23	.24	.25	.26	.26	.26	.26	.26		.25	.24	.23	.22	.20	.19		.17	.15	.14	.12		.22	.20	.18	.16	.14	.12		.10	.08		.06	.04		.02	.00	.00	.00	.00
0600	.22	.24	.26	.27	.28	.29	.30	.30	.30	.30	.29		.28	.28	.27	.26	.24	.23		.21	.19	.18	.16		.21	.19	.18	.16	.14	.12		.10	.08		.06	.04		.02	.00	.00	.00	.00
15	.26	.28	.30	.31	.32	.33	.34	.34	.34	.34	.33		.33	.32	.31	.30	.28	.27		.25	.24	.22	.20		.25	.24	.22	.20	.18	.16		.14	.12		.10	.08		.06	.04		.02	.00
30	.30	.32	.34	.35	.36	.37	.36	.38	.38	.38	.37		.36	.36	.35	.34	.32	.31		.29	.29	.28	.26		.38	.36	.35	.33	.31	.29		.27	.25		.23	.21		.19	.17		.15	.13
45	.34	.36	.37	.39	.40	.41	.41	.42	.42	.42	.41		.40	.39	.39	.37	.36	.35		.33	.32	.30	.28		.44	.42	.40	.38	.36	.34		.32	.30		.28	.26		.24	.22		.20	.18

MAY-AUG 50 N TABLE 8-1 SOLAR PARAMETERS $\cos^2 x_0$ ($w/m=2.$) ... SIGNIFIES $\cos^2 z = 1.$
 ADD 1000 TO VALUES PRECEDED BY .

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MST	MAY					JUN					JUL					AUG								
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30		
0700	.38	.40	.41	.43	.44	.44	.45	.45	.46	.45	.45	.45	.46	.47	.47	.48	.48	.49	.49	.49	.49	.49		
	511	534	553	568	581	591	595	603	603	602	598	591	593	573	560	546	531	514	503	493	473	453	431	
15	.42	.44	.45	.46	.47	.48	.49	.49	.49	.49	.49	.49	.49	.49	.49	.49	.49	.49	.49	.49	.49	.49	.49	
	563	585	603	619	631	641	648	652	653	651	647	641	632	622	610	597	582	565	544	521	505	484	462	
30	.46	.47	.49	.50	.51	.52	.52	.53	.53	.53	.53	.52	.51	.51	.50	.49	.48	.46	.45	.43	.42	.40	.38	
	614	635	653	668	680	689	697	700	701	699	695	699	691	671	659	646	631	615	595	571	554	536	514	
45	.49	.51	.52	.54	.55	.55	.56	.56	.56	.56	.56	.56	.56	.56	.56	.56	.56	.56	.54	.53	.52	.51	.50	
	663	684	701	716	728	737	744	747	747	746	742	736	728	718	707	694	680	664	644	626	606	586	564	
0800	.53	.54	.56	.57	.58	.59	.59	.60	.60	.60	.60	.59	.59	.59	.58	.57	.56	.55	.54	.52	.51	.49	.47	
	711	731	748	762	774	782	789	792	792	791	787	781	773	764	753	741	727	711	692	674	655	635	614	
15	.56	.58	.59	.60	.61	.62	.63	.63	.63	.63	.63	.62	.62	.61	.60	.59	.58	.57	.55	.54	.53	.51	.49	
	756	776	793	807	818	826	833	836	836	834	831	825	813	803	793	786	772	757	738	720	702	682	661	
30	.60	.61	.62	.64	.64	.65	.66	.66	.66	.66	.66	.66	.66	.65	.64	.63	.62	.60	.59	.57	.56	.54	.53	
	800	819	836	849	860	868	874	877	878	876	873	867	860	851	841	829	816	801	782	765	745	727	706	
45	.63	.64	.65	.67	.68	.68	.69	.69	.69	.69	.69	.69	.69	.68	.67	.67	.66	.65	.63	.62	.61	.59	.58	
	842	860	876	889	900	908	914	917	917	916	912	907	900	892	881	870	857	843	824	807	789	770	749	
0900	.65	.67	.68	.69	.70	.71	.72	.72	.72	.72	.72	.71	.71	.70	.69	.68	.66	.66	.65	.64	.62	.61	.59	
	881	899	915	928	938	945	952	954	955	953	950	945	933	920	909	896	883	864	843	830	811	790	768	
15	.68	.70	.71	.72	.73	.74	.74	.75	.75	.75	.74	.74	.74	.73	.72	.71	.70	.69	.68	.65	.63	.62	.60	
	918	935	951	963	973	981	987	989	990	989	985	981	974	966	957	946	933	920	902	885	858	849	828	
30	.71	.72	.73	.75	.75	.76	.77	.77	.77	.77	.77	.77	.77	.76	.75	.74	.73	.72	.70	.69	.68	.66	.63	
	951	969	984	996	006	013	*019*022*022*021*018*014						*007*000	390	980	968	955	937	921	903	884	864	842	
45	.73	.74	.76	.77	.78	.78	.79	.79	.79	.79	.79	.79	.79	.78	.77	.76	.75	.74	.73	.72	.70	.69	.67	
	982*000*014*026*	036*043					*049*052*052*051*048*044						*038*031*022*011*000	987	969	953	936	917	897	875				

MAY-AUG 50 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.) *** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					JUL					AUG						
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30
1000	.75	.77	.78	.79	.80	.81	.81	.81	.81	.81	.81	.80	.79	.78	.78	.76	.75	.74	.72	.71	.69	.67
	*010*027*041*053*063*070		*076*079*079*078*076*072			*066	.059	.050	.040	*029*016		999	983	965	947	926	904					
15	.77	.78	.80	.81	.82	.82	.83	.83	.83	.83	.82	.81	.80	.80	.78	.77	.75	.74	.73	.71	.69	
	*035*052*066*077*087*094		*100*103*104*103*100*066			*091	.081	.076	.066	*055*042		.025*009	.012	.012	.012	.012	.012					
30	.79	.80	.81	.82	.83	.84	.84	.85	.85	.84	.84	.84	.83	.82	.81	.80	.79	.74	.71	.75	.73	.71
	*057*073*087*099*108*115		*121*124*125*124*122*118			*113	.106	.098	.089	*078*065		.048*033	.015	.015	.015	.015	.015					
45	.80	.81	.83	.84	.84	.85	.86	.86	.86	.86	.86	.85	.84	.83	.82	.80	.75	.79	.76	.74	.72	
	*075*091*105*116*126*133		*139*142*143*143*137			*132	.126	.118	.108	*098*085		.069*053	.035	.017	.017	.017	.017					
100	.81	.82	.84	.85	.85	.86	.87	.87	.87	.87	.87	.86	.85	.84	.83	.82	.82	.80	.79	.77	.76	.74
	*090*106*120*131*140*147		*153*156*158*158*156*153			*146	.142	.134	.125	*114*102		.085*075	.052	.033	.013	.000						
15	.82	.83	.84	.85	.86	.87	.88	.88	.88	.88	.88	.87	.86	.85	.84	.83	.81	.80	.78	.77	.75	
	*102*118*131*142*151*158		*165*168*170*170*168*165			*160	.154	.147	.138	*128*116		.099*013	.05	.047	.026	.003						
30	.83	.84	.85	.86	.87	.88	.88	.89	.89	.89	.88	.87	.87	.86	.85	.83	.82	.81	.79	.77	.75	
	*110*125*139*150*159*166		*173*176*178*178*177*174			*170	.164	.157	.148	*138*126		.109*033	.076	.057	.035	.012						
45	.83	.84	.85	.86	.87	.88	.89	.89	.89	.89	.88	.88	.88	.87	.86	.85	.84	.83	.81	.79	.78	.76
	*115*130*143*154*163*171		*177*181*183*183*182*180			*176	.170	.163	.154	*144*132		.116*100	.092	.063	.041	.018						
100	.83	.84	.85	.86	.87	.88	.89	.89	.89	.89	.88	.88	.87	.87	.86	.84	.83	.81	.80	.78	.76	
	*116*131*144*155*164*172		*179*182*185*185*182			*178	.173	.166	.158	*147*136		.119*103	.085	.065	.044	.020						
15	.83	.84	.85	.86	.87	.88	.89	.89	.89	.89	.88	.85	.85	.85	.84	.83	.81	.80	.78	.76		
	*113*128*141*152*162*170		*177*181*183*184*183*181			*178	.173	.166	.157	*147*135		.119*102	.084	.064	.042	.018						
30	.82	.84	.85	.86	.87	.87	.88	.89	.89	.89	.88	.88	.87	.86	.85	.84	.82	.81	.79	.77	.75	
	*107*122*135*146*156*164		*171*175*178*179*177			*174	.163	.162	.154	*144*132		.115*055	.083	.060	.037	.013						
45	.82	.83	.84	.85	.86	.87	.87	.88	.88	.88	.87	.87	.86	.85	.83	.82	.80	.79	.77	.75		
	*097*112*125*137*147*155		*162*167*170*171*171*169			*165	.161	.155	.147	*136*124		.107*031	.072	.052	.029	.004						

MAY-AUG 50 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M*2.)
 :: SIGNIFIES COS Z = 1.
 :: ADD 100 TO VALUES PRECEDED BY .

MST	MAY					JUN					DATE					AUG						
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30
1300	.91	.92	.93	.94	.95	.96	.87	.87	.87	.88	.88	.87	.87	.86	.85	.84	.82	.91	.80	.78	.76	.74
	*084*099+112*124*134*142						*150*155*158*160*160*159					*156*151*144*136*126*114					*097*080*051*040*017	992				
15	.79	.81	.82	.83	.84	.85	.85	.86	.86	.87	.86	.86	.86	.85	.84	.83	.81	.80	.78	.77	.75	.73
	*067*083*096+108*118*127						*135*140*143*145*146*144					*142*137*131*122*112*100					*083*065*045*025*001	975				
30	.78	.79	.80	.81	.82	.83	.84	.85	.85	.85	.85	.85	.84	.83	.82	.80	.75	.77	.75	.73	.71	
	*047*063*076*089*099*108						*116*122*125*128*128*127					*125*120*114*105*095*083					*065*043*028*006	982	956			
45	.76	.77	.79	.80	.81	.82	.82	.83	.83	.84	.84	.83	.83	.82	.81	.80	.79	.77	.75	.74	.72	.69
	*024*040*054*066*077*086						*094*100*104*107*108*107					*104*100*093*085*075*062					*044*027*007	985	960	933		
1400	.74	.76	.77	.78	.79	.80	.81	.81	.82	.82	.82	.82	.81	.81	.80	.79	.78	.77	.75	.74	.72	.68
	*998*014*023*040*051*061						*070*076*080*083*084*093					*081*076*070*062*051*039					*020*002	982	959	934	907	
15	.72	.73	.75	.76	.77	.78	.78	.79	.79	.80	.80	.80	.79	.79	.78	.77	.76	.75	.73	.72	.70	.65
	968 984 999*012*023*033						*042*048*053*056*057*057					*055*050*044*036*025*012					993	975	954	931	906	878
30	.70	.71	.72	.73	.74	.75	.76	.77	.77	.78	.78	.77	.77	.77	.76	.75	.74	.72	.71	.69	.67	.63
	936 952 967 980 992*002						*012*018*023*026*028*028					*025*021*015*006	996	982			963	945	924	900	874	845
45	.67	.68	.70	.71	.72	.73	.74	.74	.75	.75	.75	.75	.75	.74	.74	.73	.72	.70	.68	.67	.65	.60
	901 917 932 946 958 968						979 986 991 994 996 996					994 999 983 974 963 950					931	911	890	866	839	810
1500	.64	.66	.67	.68	.69	.70	.71	.72	.72	.73	.73	.72	.72	.71	.70	.69	.67	.65	.64	.62	.60	.57
	863 880 895 909 921 932						943 950 956 960 961 961					959 955 949 940 929 915					895	876	853	829	802	772
15	.61	.63	.64	.65	.66	.67	.68	.69	.69	.70	.70	.70	.69	.68	.67	.66	.64	.63	.61	.59	.57	.54
	823 840 856 870 883 894						905 913 918 922 924 925					922 918 912 903 891 877					857	837	815	789	762	731
30	.58	.59	.61	.62	.63	.64	.65	.66	.66	.67	.67	.67	.66	.66	.65	.64	.63	.61	.60	.58	.56	.54
	780 798 814 828 842 853						865 873 879 883 885 885					883 879 873 863 852 837					817	796	773	747	719	686
45	.55	.56	.58	.59	.60	.61	.62	.63	.64	.64	.64	.64	.63	.63	.62	.61	.60	.58	.57	.55	.53	.50
	735 753 770 785 798 810						823 831 837 842 844 844					842 838 831 822 810 795					774	753	730	703	674	643

MAY-AUG 50 N TABLE B-1 SOLAR PARAMETERS

COS Z
(W/M=-2.)*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					DATE					JUL					AUG					
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20
1600	.51	.53	.54	.55	.57	.58	.59	.59	.60	.60	.61	.61	.60	.60	.60	.59	.58	.57	.55	.53	.51	.49	.47	.44		
689	707	724	739	753	766	778	787	794	798	801	792	795	788	778	766	751	729	703	684	657	628	596				
15	.48	.49	.51	.52	.53	.54	.55	.56	.57	.57	.57	.56	.57	.57	.56	.55	.54	.53	.51	.50	.48	.46	.43	.41		
640	659	677	692	707	720	733	742	748	753	756	756	754	750	743	733	721	705	683	661	636	609	579	547			
30	.44	.45	.47	.48	.49	.50	.52	.52	.53	.53	.54	.54	.54	.53	.53	.52	.51	.50	.48	.46	.41	.42	.39	.37		
590	610	628	644	659	672	685	695	702	707	710	710	708	704	696	686	673	658	635	612	587	559	529	496			
45	.40	.42	.43	.44	.46	.47	.48	.49	.49	.50	.50	.50	.50	.50	.50	.49	.48	.47	.46	.44	.42	.30	.38	.36	.33	
539	559	577	594	609	623	637	646	654	659	662	662	660	656	648	638	625	609	585	562	537	508	477	444			
1700	.36	.38	.39	.41	.42	.43	.44	.45	.46	.46	.46	.46	.45	.46	.45	.44	.43	.42	.40	.35	.35	.34	.32	.29		
487	507	526	543	559	573	587	597	605	610	613	614	612	607	599	589	575	558	534	511	.55	456	424	390			
15	.32	.34	.35	.37	.38	.39	.40	.41	.42	.42	.43	.43	.42	.42	.42	.41	.40	.38	.36	.34	.32	.30	.28	.25		
434	454	474	491	508	522	537	547	555	560	564	564	562	557	549	538	524	507	483	453	.432	403	371	336			
30	.28	.30	.31	.33	.34	.35	.37	.37	.38	.39	.39	.39	.38	.38	.37	.36	.34	.32	.31	.28	.26	.24	.21			
380	401	421	439	456	471	486	496	504	510	513	514	511	506	498	487	473	455	430	405	.379	349	316	281			
45	.24	.26	.27	.29	.30	.31	.33	.34	.34	.35	.35	.35	.35	.34	.34	.33	.30	.28	.25	.24	.22	.20	.17			
326	347	368	386	403	419	434	445	453	459	462	463	460	455	447	435	421	403	377	352	.325	294	261	226			
1800	.20	.22	.24	.25	.26	.28	.29	.30	.30	.31	.31	.31	.31	.31	.30	.29	.28	.26	.24	.22	.20	.18	.15	.13		
271	293	314	334	351	367	383	394	402	408	411	412	403	404	395	383	368	350	324	293	.270	239	206	170			
15	.16	.18	.20	.21	.22	.24	.25	.26	.27	.27	.27	.27	.27	.27	.27	.26	.25	.24	.22	.20	.18	.16	.14	.11	.09	
30	.12	.14	.16	.17	.19	.20	.21	.22	.23	.23	.23	.21	.23	.22	.21	.20	.18	.16	.14	.12	.10	.07	.04			
45	.08	.10	.12	.13	.15	.16	.17	.18	.19	.19	.20	.19	.19	.18	.17	.16	.14	.12	.10	.08	.06	.03	.00			
109	133	155	176	195	212	229	240	249	255	259	259	256	250	240	227	211	192	164	137	.138	075	041	003			

MAY-AUG 50 N TABLE B-1 SOLAR PARAMETERS $\cos^2 x_0$ ($N/M^2 \cdot s^2$) ... SIGNIFIES $\cos^2 z = 1$.
AND 1000 TC VALUES PRECEDED BY .

MST	MAY					JUN					DATE					AUG						
	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	
1900	.04	.06	.08	.09	.11	.12	.13	.14	.15	.16	.16	.15	.14	.13	.12	.11	.08	.05	.04	.02	.00	
	.056	.081	.104	.125	.144	.161	.178	.190	.199	.206	.209	.209	.206	.199	.190	.176	.160	.140	.112	.085	.055	
15	.00	.02	.04	.06	.07	.08	.10	.11	.11	.12	.12	.12	.11	.11	.10	.06	.07	.05	.02	.00	.00	
	.005	.029	.053	.074	.094	.111	.129	.141	.150	.157	.163	.160	.153	.150	.143	.126	.109	.089	.060	.038	.022	.000
30	.00	.00	.00	.02	.03	.05	.06	.07	.08	.08	.08	.08	.08	.08	.07	.06	.05	.03	.01	.00	.00	
	.000	.000	.003	.025	.045	.063	.081	.093	.102	.109	.112	.108	.105	.101	.091	.077	.059	.039	.010	.003	.000	
45	.00	.00	.00	.00	.01	.01	.03	.04	.04	.05	.05	.05	.04	.03	.02	.01	.00	.00	.00	.00	.00	
	.000	.000	.000	.000	.016	.034	.046	.056	.062	.065	.065	.061	.054	.043	.029	.011	.000	.000	.003	.000	.000	
2000	.00	.00	.00	.00	.00	.00	.00	.00	.01	.01	.02	.01	.01	.01	.00	.00	.00	.00	.00	.00	.00	
	.000	.000	.000	.000	.000	.000	.000	.001	.010	.017	.020	.019	.015	.008	.000	.000	.000	.000	.003	.000	.000	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.003	.000	.000	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.003	.000	.000	

MAY-AUG 50 N TABLE B-1 SOLAR PARAMETERS $\cos Z$
 $x_0 (W/M^{**2})$

*** SIGNIFIES $\cos Z = 1$.
ADD 1000 TO VALUES PRECEDED BY *

MST	DATE										
	5	10	15	20	25	30	5	10	15	20	25
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3000	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0220	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0450	.06	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00
0780	.051	.023	.000	.000	.000	.000	.000	.000	.000	.000	.000
0600	.10	.08	.06	.04	.02	.00	.00	.00	.00	.00	.00
1340	.107	.080	.053	.024	.000	.000	.000	.000	.000	.000	.000
1500	.14	.12	.10	.08	.06	.04	.02	.00	.00	.00	.00
1900	.164	.137	.110	.082	.053	.000	.000	.000	.000	.000	.000
3000	.18	.16	.14	.12	.10	.08	.06	.04	.01	.00	.00
0246	.220	.194	.166	.138	.110	.080	.050	.020	.000	.000	.000
4500	.22	.20	.18	.16	.14	.12	.10	.08	.06	.03	.00
3020	.276	.250	.223	.195	.166	.136	.106	.075	.044	.013	.000
0700	.26	.25	.23	.20	.18	.16	.14	.12	.10	.07	.03
1500	.30	.29	.27	.24	.22	.20	.18	.16	.13	.11	.06
4100	.365	.359	.332	.304	.275	.246	.215	.184	.153	.121	.089
3000	.34	.32	.30	.28	.26	.24	.22	.20	.17	.15	.10
4500	.38	.36	.34	.32	.30	.28	.26	.23	.21	.19	.14
5140	.489	.463	.436	.408	.379	.349	.319	.287	.255	.223	.191

TABLE B-1 SOLAR PARAMETERS CCS Z = 1.
SEP-DEC 50 N (W/RA=2.) ADD 1000 TO VALUES PRECEDED BY .

*** SIGNIFIES COS Z = 1.

MST	SEP					OCT					NOV					DEC						
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30
0800	.42	.40	.38	.36	.34	.31	.29	.27	.24	.22	.20	.17	.14	.12	.10	.08	.06	.04	.03	.01	.00	.00
	563	539	513	486	458	429	399	368	336	304	271	239	203	163	139	110	084	060	038	023	005	000
15	.45	.43	.41	.39	.37	.35	.33	.30	.28	.25	.23	.21	.18	.15	.13	.11	.09	.08	.06	.04	.03	.02
	611	586	560	533	505	476	446	415	383	350	319	285	245	215	184	156	129	105	064	063	051	040
30	.49	.47	.45	.43	.40	.38	.36	.33	.31	.29	.26	.24	.21	.19	.16	.14	.12	.11	.09	.08	.07	.05
	656	632	606	579	551	521	491	459	427	395	362	329	290	258	229	199	172	148	127	103	094	077
45	.52	.50	.48	.46	.44	.41	.39	.37	.34	.32	.29	.27	.24	.21	.19	.17	.15	.13	.12	.10	.09	.08
	700	675	649	622	594	564	533	502	469	436	403	370	331	299	269	240	213	189	168	150	135	126
0900	.55	.53	.51	.49	.47	.44	.42	.39	.37	.34	.32	.29	.27	.24	.22	.20	.18	.16	.15	.13	.12	.11
	740	716	690	662	634	604	573	541	509	475	442	419	369	337	307	278	252	228	207	189	175	165
15	.58	.56	.54	.52	.49	.47	.45	.42	.40	.37	.35	.32	.405	.373	.342	.314	.287	.263	.243	.225	.212	.202
	779	754	728	700	671	641	610	578	545	512	478	444	.47	.45	.42	.39	.37	.34	.31	.29	.27	.25
58	.60	.58	.56	.54	.52	.49	.614	.589	.559	.525	.511	.477	.439	.406	.375	.346	.320	.296	.276	.259	.245	.236
30	.63	.61	.59	.56	.54	.52	.49	.47	.44	.42	.39	.37	.467	.435	.405	.376	.350	.326	.306	.289	.275	.263
45	.67	.65	.63	.61	.59	.56	.54	.52	.50	.48	.45	.43	.51	.48	.45	.42	.39	.36	.33	.30	.27	.24
	847	822	795	767	738	707	675	642	609	575	541	507	.51	.49	.46	.44	.41	.38	.35	.33	.31	.28
1000	.65	.63	.61	.59	.56	.54	.51	.49	.46	.44	.41	.38	.493	.461	.431	.402	.376	.353	.333	.317	.304	.292
	876	851	824	796	766	735	703	670	636	602	568	533	.53	.51	.48	.45	.43	.40	.37	.35	.32	.29
15	.67	.65	.63	.60	.58	.56	.53	.51	.48	.45	.43	.40	.517	.484	.454	.426	.400	.377	.357	.341	.329	.318
	902	877	850	821	791	760	727	694	660	625	591	557	.55	.52	.49	.47	.44	.42	.39	.36	.34	.32
30	.69	.67	.64	.62	.60	.57	.55	.52	.49	.47	.44	.42	.533	.504	.474	.445	.420	.397	.376	.362	.351	.343
	925	900	872	843	813	781	748	715	680	646	611	576	.56	.53	.51	.48	.45	.43	.40	.37	.35	.33
45	.70	.68	.66	.63	.61	.58	.56	.53	.51	.48	.45	.43	.552	.520	.490	.462	.437	.414	.395	.363	.339	.319

SEP-DEC 50 N

50

N

TABLE B-1

SOLAR PARAMETERS

COS Z

X0 (W/M**2.)

ADD 1000 TO VALUES PRECEDED BY *

*** SIGNIFIES COS Z = 1.

MST	DATE					DATE					DATE							
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1100	.71	.69	.67	.65	.62	.60	.57	.54	.52	.49	.46	.44	.41	.39	.36	.34	.32	.30
	961	934	906	877	846	813	780	745	710	675	640	605	565	533	503	475	450	428
15	.72	.70	.68	.65	.63	.60	.58	.55	.52	.50	.47	.44	.41	.39	.37	.35	.33	.31
	973	947	918	888	857	824	790	755	720	684	649	614	574	542	512	484	459	438
30	.73	.71	.68	.66	.63	.61	.58	.55	.53	.50	.47	.45	.42	.39	.37	.35	.33	.32
	982	955	926	896	864	830	796	761	725	690	654	619	579	547	517	490	465	444
45	.73	.71	.69	.66	.64	.61	.58	.56	.53	.50	.47	.45	.42	.39	.37	.35	.33	.32
	987	960	931	900	867	833	799	763	727	691	656	621	581	549	519	482	468	447
1200	.73	.71	.69	.66	.64	.61	.58	.55	.53	.50	.47	.45	.42	.39	.37	.35	.33	.32
	989	961	931	900	867	833	798	762	726	689	654	619	578	547	517	490	467	446
15	.73	.71	.69	.66	.63	.61	.58	.55	.52	.49	.47	.44	.41	.39	.37	.35	.33	.31
	987	958	928	896	863	828	793	757	720	684	648	613	573	541	512	485	462	442
30	.73	.70	.68	.65	.63	.60	.57	.54	.52	.49	.46	.43	.40	.38	.36	.34	.32	.31
	981	952	921	889	855	820	784	748	711	674	638	603	563	532	503	476	453	434
45	.72	.70	.67	.65	.62	.59	.56	.53	.51	.48	.45	.42	.39	.37	.35	.33	.31	.30
	971	942	911	878	844	808	772	735	698	661	625	590	550	519	490	464	441	422
1300	.71	.69	.66	.64	.61	.58	.55	.52	.49	.47	.44	.41	.38	.36	.34	.32	.30	.29
	958	928	897	863	828	792	756	719	681	644	608	573	533	502	474	448	426	407
15	.70	.67	.65	.62	.59	.57	.54	.51	.48	.45	.42	.40	.37	.35	.32	.31	.29	.28
	942	911	879	845	810	773	736	699	661	624	568	553	513	482	454	429	407	389
30	.68	.66	.63	.61	.58	.55	.52	.49	.46	.43	.41	.38	.35	.33	.31	.29	.27	.26
	921	891	858	823	787	751	713	675	638	600	564	529	481	459	431	406	385	367
45	.67	.64	.61	.59	.56	.53	.50	.47	.44	.41	.39	.36	.32	.31	.29	.27	.24	.23
	898	866	833	798	762	725	687	649	611	573	537	502	462	432	405	380	359	326

SEP-DEC 50 N TABLE B-1 SOLAR PARAMETERS COS Z = 1.
X.O (W/M**2.) /DD 1000 TO VALUES PRECEDED BY .
... SIGNIFIES COS Z = 1.

MST	SEP					OCT					NOV					DEC				
	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25
1400	.65	.62	.59	.57	.54	.51	.48	.45	.42	.39	.37	.34	.31	.29	.27	.25	.24	.22	.21	.21
	871	839	805	770	733	695	657	619	580	543	506	472	432	402	375	351	330	314	301	292
15	.62	.60	.57	.54	.51	.49	.46	.43	.40	.37	.34	.22	.24	.26	.25	.23	.21	.20	.19	.19
	841	808	774	738	701	663	624	585	547	509	475	438	395	369	342	319	299	262	270	262
30	.60	.57	.55	.52	.49	.46	.43	.40	.37	.34	.32	.29	.26	.24	.22	.20	.19	.18	.16	.17
	808	775	740	703	666	627	588	549	511	473	437	402	363	334	307	284	264	248	236	226
45	.57	.55	.52	.49	.46	.43	.40	.37	.34	.31	.29	.26	.23	.21	.19	.18	.16	.15	.14	.15
	772	738	703	666	628	589	549	510	471	434	397	363	324	295	269	246	227	211	200	197
1500	.54	.52	.49	.46	.43	.40	.37	.34	.31	.28	.26	.23	.20	.18	.16	.15	.13	.12	.11	.12
	733	699	663	625	587	548	508	469	430	392	355	321	283	254	228	205	187	172	161	154
15	.51	.49	.46	.43	.40	.37	.34	.31	.28	.25	.22	.20	.17	.15	.13	.12	.10	.09	.09	.09
	692	657	621	583	544	504	464	424	385	347	311	277	239	210	185	163	144	130	119	113
30	.48	.45	.43	.40	.37	.34	.31	.28	.25	.22	.19	.17	.14	.12	.10	.08	.07	.06	.05	.06
	648	613	576	537	498	458	418	378	339	301	265	230	193	164	139	118	100	086	076	073
45	.45	.42	.39	.36	.33	.30	.27	.24	.21	.18	.16	.13	.10	.08	.07	.05	.04	.03	.02	.03
	602	567	529	490	450	410	369	329	290	252	216	182	144	116	932	70	053	039	030	024
1600	.41	.38	.35	.32	.29	.26	.23	.20	.17	.15	.12	.10	.07	.05	.03	.02	.00	.00	.00	.00
	555	518	480	440	400	360	319	279	239	202	165	132	094	067	042	021	004	000	000	000
15	.37	.35	.32	.29	.26	.23	.20	.17	.14	.11	.08	.06	.03	.01	.00	.00	.00	.00	.00	.00
	505	468	429	389	349	308	267	226	187	149	113	850	043	015	005	000	000	000	000	000
30	.34	.31	.28	.25	.22	.19	.16	.13	.10	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00
	453	416	377	337	295	254	213	173	133	096	060	026	000	036	000	000	000	000	000	000
45	.30	.27	.24	.21	.18	.15	.12	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	401	363	323	282	241	200	158	118	079	041	005	000	000	000	000	000	000	000	000	000

TABLE B-1 SOLAR PARAMETERS COS Z = 1.
 SEP-DEC 50 N X0 (W/M²*2.) ADD 1000 TO VALUES PRECEDED BY *

** SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY *

NST	SEP					OCT					NOV					DEC				
	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25
1700	.26	.23	.20	.17	.14	.11	.08	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	347	308	268	227	186	144	103	062	023	000	000	000	000	000	000	000	000	000	000	000
15	.22	.19	.16	.13	.10	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	292	253	213	171	129	088	046	005	000	000	000	000	000	000	000	000	000	000	000	000
30	.18	.15	.12	.08	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	236	197	156	115	073	030	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.13	.10	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	180	140	099	058	015	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
1800	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	124	084	042	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	68	027	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	61	012	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

TABLE B-1 SOLAR PARAMETERS $\cos Z = 1$
 $\cos Z_{XQ} (W/M^2)$
 SEP-DEC 50 N ** SIGNIFIES $\cos Z = 1$.
 ADD 1000 TO VALUES PRECEDED BY *

MST	JAN					FEB					DATE					MAR					APR													
	1	5	10	15	20	25	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30										
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03										
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	035										
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.04	.07										
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	026	060	091											
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.06	.09	.11										
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	010	018	084	117	148										
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.08	.11	.13	.15									
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	030	063	107	142	175	205									
0600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.07	.09	.12	.15	.17	.19									
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	090	123	155	200	232	262									
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.07	.11	.14	.17	.19	.21	.24										
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	019	060	101	149	183	224	258	290	319										
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.06	.09	.12	.15	.18	.21	.23	.26	.28										
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	038	079	120	161	209	247	283	316	348	376									
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.07	.10	.13	.16	.20	.22	.25	.28	.30	.32								
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	017	057	098	139	180	221	268	303	341	374	404	432							
0700	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.06	.09	.11	.14	.17	.20	.24	.27	.29	.32	.34	.36							
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	016	077	117	158	198	239	279	326	363	398	430	461	488						
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.05	.10	.13	.16	.19	.22	.25	.28	.31	.33	.36	.38	.40						
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	039	074	136	176	216	257	297	337	383	420	454	486	516	542					
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.07	.10	.14	.17	.20	.23	.26	.29	.32	.35	.40	.42	.44							
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	031	062	096	132	193	233	274	314	354	394	439	470	503	541	569	596			
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.08	.11	.14	.18	.21	.24	.27	.30	.33	.36	.39	.42						
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	007	028	058	087	118	152	188	250	290	330	370	410	449	494	523	553	593	622	647

JAN-APR 48 N TABLE B-1 SOLAR PARAMETERS COS Z =
X0 (W/m**2.) PRECEDED BY .

... SIGNIFIES COS Z =
ADD 1000 TO VALUES

PREVIOUS PAGE
IS BLANK

C

NST	DATE										APR													
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30					
0800	.01	.01	.02	.03	.04	.06	.08	.10	.12	.15	.17	.22	.25	.28	.31	.34	.37	.40	.43	.45	.48	.50	.52	
0812	014	019	029	043	060	082	112	141	173	207	243	305	344	384	424	464	502	547	582	614	645	673	698	
15	.04	.04	.05	.06	.07	.08	.09	.12	.14	.16	.19	.21	.26	.29	.32	.35	.38	.40	.44	.46	.49	.51	.53	.55
061	063	069	079	093	111	133	164	193	225	260	295	359	397	437	477	516	554	598	632	664	694	721	746	
30	.08	.08	.08	.09	.10	.11	.13	.15	.17	.20	.22	.25	.29	.32	.35	.38	.41	.44	.47	.50	.52	.55	.57	.59
108	110	117	127	142	161	183	214	244	276	311	347	402	438	488	527	566	603	647	680	712	741	768	792	
45	.11	.11	.12	.13	.15	.16	.19	.21	.23	.26	.28	.33	.36	.39	.42	.45	.47	.51	.53	.56	.58	.60	.62	
152	155	162	173	188	208	230	262	292	325	359	396	457	497	536	575	613	651	693	723	758	786	812	836	
0900	.14	.14	.15	.15	.17	.18	.20	.22	.24	.26	.29	.32	.36	.39	.42	.45	.48	.51	.54	.56	.59	.61	.63	.65
195	198	205	217	233	252	276	308	338	371	406	443	504	543	582	621	659	695	737	773	803	828	854	877	
15	.17	.17	.17	.18	.19	.21	.23	.25	.27	.30	.32	.35	.39	.42	.45	.48	.51	.54	.57	.59	.62	.64	.66	.68
234	238	246	258	274	294	316	351	381	414	450	486	547	586	625	664	701	737	778	811	841	868	893	915	
30	.19	.19	.20	.21	.22	.24	.25	.28	.30	.32	.35	.38	.42	.45	.48	.51	.54	.57	.60	.62	.65	.67	.69	.71
271	275	284	296	313	334	358	391	422	455	490	527	585	627	665	704	741	776	817	843	873	905	929	951	
45	.22	.22	.23	.24	.25	.26	.28	.30	.33	.35	.38	.41	.45	.48	.51	.54	.56	.59	.62	.65	.67	.69	.71	.73
305	309	318	332	349	370	395	428	460	493	528	565	626	664	703	740	777	812	852	883	912	939	962	984	
1000	.24	.24	.25	.26	.27	.29	.30	.33	.35	.38	.40	.43	.45	.50	.53	.56	.59	.62	.65	.67	.69	.71	.73	.75
336	341	350	364	382	404	429	463	494	528	563	600	661	699	737	774	810	845	884	915	943	969	993*013		
15	.26	.26	.27	.28	.29	.31	.33	.35	.37	.40	.43	.45	.50	.53	.55	.58	.61	.64	.67	.69	.71	.73	.75	.77
363	369	379	393	412	434	459	494	525	559	595	632	692	730	768	804	840	874	913	943	971	996*019*040			
30	.27	.28	.29	.30	.31	.33	.35	.37	.39	.42	.45	.47	.52	.55	.57	.60	.63	.66	.69	.71	.73	.75	.77	.79
388	393	404	419	438	461	486	521	553	587	623	660	720	753	795	831	867	900	938	963	995*020*043*063				
45	.29	.29	.30	.31	.33	.34	.36	.39	.41	.44	.46	.49	.54	.56	.59	.62	.65	.67	.70	.73	.75	.77	.79	.80
409	415	426	442	461	484	510	546	578	612	647	684	744	782	818	855	889	923	960	983	995*016*040*062*082				

JAN-APR 48 N TABLE B-1 SOLAR PARAMETERS COS Z XD (W/M**2.) ADD 10C0 TO VALUES PRECEDED BY *

** SIGNIFIES COS Z = 1.

MST	DATE										DATE									
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1100	.30	.31	.33	.34	.36	.38		.40	.43	.45	.43	.51		.53	.53	.61	.63	.66	.69	
	426	433	444	461	480	504	530	566	598	633	668	705		765	562	838	874	908	941	
15	.31	.32	.34	.35	.37	.39		.41	.44	.46	.49	.52		.55	.59	.62	.64	.67	.70	
	440	447	459	476	496	520	547	583	616	650	686	722		782	518	855	840	924	956	
30	.32	.33	.35	.36	.38	.40		.42	.45	.47	.50	.53		.57	.60	.63	.65	.68	.70	
	450	457	470	487	508	533	560	596	629	663	695	736		794	831	867	902	935	967	
45	.32	.33	.34	.35	.37	.38	.40	.43	.45	.48	.51	.53		.53	.51	.63	.66	.69	.71	
	456	464	478	495	517	541	569	606	638	673	709	745		804	840	875	910	943	974	
1200	.32	.33	.34	.35	.37	.39	.41	.43	.46	.48	.51	.54		.54	.61	.64	.66	.69	.71	
	459	467	481	500	521	546	574	611	644	679	714	750		803	845	860	914	946	977	
15	.32	.33	.34	.35	.37	.39	.41	.44	.46	.49	.51	.54		.58	.61	.64	.66	.69	.71	
	458	467	481	500	522	547	576	613	646	680	716	752		810	840	860	914	946	977	
30	.32	.33	.34	.35	.37	.39	.41	.43	.46	.48	.51	.54		.58	.61	.63	.66	.69	.71	
	453	462	478	497	519	545	573	611	644	678	714	750		807	842	877	910	942	972	
45	.31	.32	.33	.35	.36	.38	.40	.43	.45	.48	.51	.53		.58	.60	.63	.65	.69	.70	
	445	454	470	489	512	538	567	604	638	672	708	743		803	835	870	902	934	964	
1300	.31	.32	.34	.36	.37	.40		.42	.45	.47	.50	.53		.57	.59	.62	.65	.67	.69	
	433	443	459	479	502	528	557	595	628	662	693	733		792	824	853	891	922	951	
15	.29	.30	.31	.33	.35	.36	.39	.41	.44	.46	.49	.52		.56	.58	.61	.63	.66	.68	
	417	427	444	464	487	514	543	581	614	648	664	719		775	810	843	875	906	935	
30	.28	.29	.30	.32	.33	.35	.37	.40	.42	.45	.48	.50		.54	.57	.60	.62	.64	.67	
	398	408	425	446	470	496	526	563	597	631	666	701		757	791	824	856	886	915	
45	.27	.27	.29	.30	.32	.34	.36	.39	.41	.44	.46	.49		.53	.55	.58	.60	.63	.65	
	375	386	403	424	448	475	504	542	575	610	644	679		735	769	801	833	863	891	

JAN-APR N TABLE B-1 SOLAR PARAMETERS CCE Z X0 (W/M⁻²)

*** SIGNIFIES COS Z = 1.
ACD 1300 TO VALUES PRECEDED BY

NST	DATE												APR												
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
1400	.25	.25	.27	.28	.30	.32	.34	.37	.39	.42	.44	.47	.51	.54	.56	.58	.61	.63	.66	.69	.71	.73	.74		
	349	360	378	399	423	450	480	/	518	551	585	619	654	703	743	775	806	836	864	896	921	944	965	984+002	
15	.23	.23	.25	.26	.28	.30	.32	.35	.37	.40	.42	.45	.48	.51	.54	.56	.59	.61	.63	.65	.67	.69	.71	.72	
	319	331	349	370	395	422	452		489	522	556	591	625	680	713	745	776	806	834	865	895	913	934	953	971
30	.20	.21	.22	.24	.26	.28	.30	.33	.35	.37	.40	.43	.47	.49	.51	.54	.56	.58	.61	.63	.65	.66	.68	.70	
	287	299	317	339	363	391	420		458	491	525	559	593	647	680	712	743	772	800	831	855	878	900	919	937
45	.18	.19	.20	.22	.23	.25	.27	.30	.32	.35	.37	.40	.44	.46	.49	.51	.53	.56	.58	.60	.62	.64	.65	.67	
	251	263	282	304	329	356	385		423	456	490	524	558	611	644	676	706	735	763	794	813	841	862	882	901
1500	.15	.16	.17	.19	.21	.23	.25	.27	.30	.32	.35	.37	.41	.44	.46	.48	.51	.53	.55	.57	.59	.61	.62	.64	
	213	225	244	266	291	318	348		385	418	452	485	519	572	605	635	666	695	723	754	773	801	822	842	861
15	.12	.13	.14	.16	.18	.20	.22	.25	.27	.29	.32	.34	.38	.41	.43	.45	.47	.50	.52	.54	.56	.58	.59	.61	
	172	184	203	225	250	278	307		345	377	410	444	478	530	562	594	623	652	680	711	735	758	780	800	819
30	.09	.10	.11	.13	.15	.17	.19	.21	.24	.26	.29	.31	.35	.37	.40	.42	.44	.46	.49	.51	.52	.54	.56	.57	
	128	141	160	182	207	235	264		301	334	367	400	433	486	517	548	578	607	634	665	690	713	734	755	774
45	.06	.07	.08	.10	.11	.13	.16	.18	.21	.23	.25	.28	.32	.34	.36	.38	.41	.43	.45	.47	.49	.51	.52	.54	
	882	905	115	137	162	189	218		255	288	320	353	386	438	470	501	530	559	586	617	642	665	687	708	727
1600	.02	.03	.05	.06	.08	.10	.12	.15	.17	.19	.22	.24	.28	.30	.33	.35	.37	.39	.41	.43	.45	.47	.49	.50	
	934	947	967	989	114	141	170		207	239	272	304	337	389	420	451	480	508	536	567	592	615	637	658	678
15	.00	.00	.01	.03	.05	.07	.09	.11	.13	.16	.19	.20	.24	.27	.29	.31	.33	.35	.38	.40	.41	.43	.45	.47	
	900	900	900	917	939	964	991	120	157	188	221	253	286	337	368	398	428	456	483	515	535	563	586	607	627
30	.00	.00	.00	.00	.00	.01	.03	.05	.07	.10	.12	.14	.17	.20	.23	.25	.27	.29	.31	.34	.36	.38	.39	.41	.43
	900	900	900	900	900	900	908		104	136	168	200	232	283	314	344	374	402	429	461	486	510	533	554	575
45	.00	.00	.00	.00	.00	.00	.01	.04	.06	.08	.10	.13	.16	.18	.21	.23	.25	.27	.30	.32	.33	.35	.37	.39	
	900	900	900	900	900	900	904		950	981	113	145	177	228	258	288	318	346	374	405	430	455	478	500	521

JAN-APR 49 N TABLE B-1

** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	JAN										FEB										MAR										APR									
	1	5	10	15	20	25	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30										
1700 .00 .00 .00 .00 .00 .00 .00 .00 .02 .04 .06 .09 .00 .02 .04 .06 .09 .12 .15 .17 .19 .21 .23 .26 .27 .29 .31 .33 .35	000 000 000 000 000 000 000 000 026 057 089 120 171 201 231 261 289 316 348 374 398 422 445 466																																							
15 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .02 .05 .00 .00 .00 .00 .031 .063 .112 .143 .173 .202 .231 .258 .290 .316 .341 .365 .388 .410	000 000 000 000 000 000 000 000 000 000 000 004 053 084 114 143 171 199 232 253 283 308 331 354																																							
30 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .004 .004 .04 .06 .08 .10 .17 .19 .21 .23 .25 .26	000 000																																							
45 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .004 .004 .04 .06 .08 .10 .13 .15 .17 .18 .20 .22	000 000																																							
1800 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .004 .004 .04 .06 .08 .10 .13 .15 .17 .18 .20 .22	000 000																																							
15 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .004 .004 .04 .06 .08 .10 .13 .15 .17 .18 .20 .22	000 000																																							
30 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .004 .004 .04 .06 .08 .10 .13 .15 .17 .18 .20 .22	000 000																																							
45 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .004 .004 .04 .06 .08 .10 .13 .15 .17 .18 .20 .22	000 000																																							
1900 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .004 .004 .04 .06 .08 .10 .13 .15 .17 .18 .20 .22	000 000																																							
15 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .004 .004 .04 .06 .08 .10 .13 .15 .17 .18 .20 .22	000 000																																							
30 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .004 .004 .04 .06 .08 .10 .13 .15 .17 .18 .20 .22	000 000																																							
45 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .004 .004 .04 .06 .08 .10 .13 .15 .17 .18 .20 .22	000 000																																							

JAN-APR 48 N TABLE B-1 SOLAR PARAMETERS COS Z = 1.

... SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY +

MST	MAY					JUN					JUL					AUG				
	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25
0400	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0800	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.01	.01	.02	.02	.02	.01	.01	.03	.03	.03	.03	.00	.00	.00	.00	.00
0000	.00	.00	.00	.00	.00	.019	.025	.028	.028	.024	.017	.003	.000	.000	.000	.000	.000	.000	.000	.000
30	.00	.00	.01	.02	.03	.04	.05	.06	.06	.06	.05	.04	.03	.02	.01	.00	.00	.00	.00	.00
0000	.000	.007	.027	.044	.057	.068	.074	.077	.076	.072	.065	.056	.044	.029	.012	.000	.000	.000	.000	.000
45	.01	.03	.04	.06	.07	.08	.09	.09	.10	.10	.09	.08	.07	.06	.05	.03	.02	.00	.00	.00
010	.036	.059	.079	.095	.108	.119	.124	.127	.126	.122	.115	.106	.094	.079	.063	.044	.024	.000	.000	.000
0500	.05	.07	.08	.10	.11	.12	.13	.13	.13	.13	.13	.12	.11	.10	.09	.07	.06	.04	.02	.00
0800	.064	.090	.112	.132	.147	.160	.170	.176	.178	.177	.173	.166	.156	.144	.130	.114	.096	.076	.051	.029
15	.09	.11	.12	.14	.15	.16	.17	.17	.17	.17	.16	.16	.15	.14	.13	.11	.10	.08	.05	.03
119	.145	.167	.185	.201	.213	.223	.228	.230	.228	.224	.218	.208	.196	.192	.167	.149	.130	.105	.083	.036
30	.13	.15	.17	.18	.19	.20	.21	.21	.21	.21	.20	.20	.19	.18	.17	.15	.14	.12	.10	.09
176	.200	.222	.240	.255	.266	.276	.281	.282	.281	.277	.270	.261	.249	.235	.220	.203	.184	.160	.138	.116
45	.17	.19	.21	.22	.23	.24	.25	.25	.25	.24	.24	.23	.22	.21	.19	.18	.16	.15	.13	.11
232	.256	.277	.295	.309	.320	.330	.334	.334	.330	.323	.314	.302	.289	.274	.257	.238	.215	.193	.172	.149
0600	.21	.23	.25	.26	.27	.28	.29	.29	.29	.29	.28	.27	.25	.25	.24	.22	.20	.19	.17	.15
0800	.289	.312	.333	.350	.364	.375	.384	.388	.389	.387	.376	.367	.356	.343	.328	.311	.293	.270	.253	.226
15	.26	.27	.29	.30	.31	.32	.33	.33	.33	.32	.32	.31	.30	.29	.28	.26	.25	.23	.21	.18
345	.368	.368	.405	.418	.429	.437	.441	.442	.440	.436	.429	.420	.410	.397	.382	.366	.349	.326	.305	.265
30	.30	.32	.33	.34	.35	.36	.37	.37	.37	.37	.36	.36	.35	.34	.33	.32	.30	.29	.27	.24
45	.34	.36	.37	.38	.40	.40	.41	.41	.41	.41	.40	.40	.39	.38	.37	.36	.35	.33	.31	.28
457	.479	.498	.514	.526	.536	.544	.547	.548	.546	.542	.535	.527	.516	.504	.490	.475	.458	.437	.413	.377

MAY-AUG 48 N TABLE B-1 SOLAR PARAMETERS COS Z =¹
XO (W/N=+2.) *** SIGNIFIES COS Z =¹.
ADD 1000 TO VALUES PRECEDED BY +.

PREVIOUS PAGE
IS BLANK

MST	MAY										JUN										JUL										AUG									
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30				
0700	.38	.40	.41	.42	.43	.44	.45	.45	.45	.45	.44	.45	.44	.45	.45	.45	.45	.44	.43	.42	.41	.40	.39	.37	.36	.34	.32	.31	.29	.491	.473	.453	.433	.411	.389					
15	.42	.44	.45	.46	.47	.48	.49	.49	.49	.49	.48	.49	.49	.49	.49	.49	.49	.48	.47	.46	.45	.44	.43	.41	.40	.38	.36	.35	.33	.545	.527	.508	.488	.467	.445					
30	.46	.48	.49	.50	.51	.52	.53	.53	.53	.53	.52	.52	.53	.53	.53	.53	.52	.51	.51	.50	.49	.48	.47	.45	.44	.42	.41	.39	.37	.597	.583	.561	.541	.521	.499					
45	.50	.51	.53	.54	.55	.56	.56	.56	.57	.56	.56	.56	.56	.57	.56	.56	.56	.55	.54	.53	.52	.50	.49	.49	.48	.47	.46	.45	.44	.43	.41	.49	.649	.631	.613	.594	.574	.552		
670	690	707	721	732	740	747	749	749	747	743	737	730	723	709	697	683	668	649	631	613	594	574	552																	
0800	.54	.55	.56	.58	.58	.59	.60	.60	.60	.60	.59	.60	.60	.60	.60	.60	.60	.59	.59	.58	.57	.56	.55	.54	.53	.51	.50	.48	.47	.45	.699	.682	.664	.645	.625	.604				
15	.57	.59	.60	.61	.62	.63	.63	.63	.64	.63	.63	.63	.63	.64	.63	.63	.63	.62	.62	.61	.60	.59	.58	.56	.55	.53	.52	.50	.49	.747	.733	.712	.694	.674	.653					
30	.60	.62	.63	.64	.65	.66	.66	.66	.67	.67	.66	.66	.66	.67	.67	.66	.66	.65	.65	.64	.63	.62	.61	.60	.59	.57	.55	.54	.52	.793	.775	.759	.741	.721	.700					
45	.64	.65	.66	.67	.68	.69	.70	.70	.70	.70	.69	.70	.70	.70	.70	.70	.70	.69	.69	.68	.67	.66	.65	.64	.63	.62	.60	.59	.57	.55	.837	.821	.804	.785	.766	.745				
0900	.67	.68	.69	.70	.71	.72	.72	.73	.73	.73	.72	.72	.73	.73	.73	.72	.71	.71	.70	.69	.69	.67	.66	.65	.63	.62	.60	.59	.878	.863	.846	.828	.808	.788						
15	.70	.71	.72	.73	.74	.75	.75	.75	.76	.76	.75	.75	.75	.76	.76	.75	.75	.75	.74	.73	.72	.71	.70	.69	.68	.67	.66	.65	.64	.917	.902	.885	.867	.848	.828					
30	.72	.74	.75	.76	.77	.77	.78	.78	.78	.78	.78	.78	.78	.78	.78	.78	.77	.77	.77	.76	.75	.74	.73	.72	.70	.69	.68	.66	.64	.954	.939	.922	.904	.885	.865					
45	.75	.76	.77	.78	.79	.80	.80	.80	.80	.80	.80	.80	.80	.80	.80	.80	.80	.80	.79	.78	.77	.76	.76	.74	.73	.72	.70	.69	.67	.987	.972	.955	.938	.919	.899					

MAY-AUG 48 N

TABLE B-1 SOLAR PARAMETERS

COS Z X0 (W/11**2.)

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					JUL					AUG						
	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30					
1000	.77	.78	.79	.80	.81	.82	.82	.82	.83	.82	.82	.81	.80	.79	.78	.77	.75	.74	.72	.71	.69	
	*032*048*061*072*081*087					*092*095*095*094*091*097					*082*075*057*046*034					*018*003	.87	.969	.950	.930		
15	.79	.80	.81	.82	.83	.84	.84	.84	.85	.84	.84	.83	.82	.81	.80	.79	.77	.76	.75	.73	.71	
	*058*073*086*097*106*112					*117*120*120*119*117*113					*102*101*093*084*073*062					*046*031	.815	.997	.978	.957		
30	.80	.82	.83	.84	.85	.85	.86	.86	.86	.86	.86	.85	.84	.83	.82	.80	.77	.78	.76	.75	.73	
	*080*095*108*119*127*134					*139*142*142*142*139*136					*131*124*117*108*097*086					*070*055	.039	.021*002	.981			
45	.82	.83	.84	.85	.86	.87	.87	.87	.88	.88	.87	.87	.86	.85	.84	.83	.82	.81	.79	.78	.76	.75
	*099*114*127*138*146*152					*158*160*161*161*159*155					*150*144*137*128*118*107					*091*073	.060	.042*023*002				
1100	.83	.84	.85	.86	.87	.88	.88	.89	.89	.89	.89	.88	.87	.86	.85	.84	.82	.81	.79	.78	.76	
	*115*130*142*153*161*168					*173*176*177*176*175*171					*167*161*154*145*135*124					*108*094	.078	.060*040*019				
15	.84	.85	.86	.87	.88	.89	.89	.89	.90	.90	.90	.89	.89	.88	.87	.86	.84	.83	.82	.80	.79	.77
	*127*142*154*164*173*179					*185*188*189*189*187*184					*180*174*167*159*149*138					*123*103	.022	.074*054*032				
30	.84	.86	.87	.88	.89	.89	.90	.90	.90	.90	.90	.90	.89	.88	.87	.86	.85	.84	.83	.81	.79	.78
	*135*150*162*172*181*187					*193*196*198*198*196*194					*190*184*172*159*160*149					*133*112	.102	.084*064*042				
45	.85	.86	.87	.88	.89	.90	.90	.91	.91	.91	.91	.90	.89	.88	.87	.86	.84	.83	.82	.80	.78	
	*140*154*167*177*185*192					*198*201*203*203*202*200					*193*191*184*176*167*156					*140*125	.109	.090*070*048				
1200	.85	.86	.87	.88	.89	.90	.90	.91	.91	.91	.91	.90	.89	.88	.87	.86	.84	.83	.82	.80	.78	
	*141*155*167*178*186*193					*199*203*205*205*202					*199*194*187*179*170*159					*143*123	.112	.093*072*050				
15	.85	.86	.87	.88	.89	.89	.90	.91	.91	.91	.91	.90	.89	.88	.87	.86	.85	.83	.82	.80	.78	
	*138*153*165*175*184*191					*197*201*203*204*203*201					*193*183*177*179*170*159					*143*123	.111	.092*071*048				
30	.84	.85	.87	.88	.89	.89	.90	.90	.91	.91	.91	.90	.89	.88	.87	.86	.84	.83	.82	.80	.78	
	*132*146*158*169*178*185					*192*195*198*199*199*197					*194*189*183*175*166*155					*135*124	.107	.087*066*043				
45	.83	.85	.86	.87	.88	.88	.89	.89	.90	.90	.90	.89	.89	.88	.87	.86	.85	.84	.82	.81	.79	.77
	*122*136*148*159*168*175					*182*187*189*191*191*191					*186*182*176*168*159*147					*131*115	.038	.079*057*033				

MAY-AUG 48 N

TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M²*2.)

*** SIGNIFIES COS Z = 1
ADD 1000 TO VALUES PRECEDED BY .

MST	MAY					JUN					DATE					AUG							
	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1300	.82	.84	.85	.86	.87	.88	.88	.89	.89	.89	.89	.89	.88	.88	.87	.87	.86	.84	.83	.81	.80	.78	.76
	*108*122*135*146*155*162					*170*174*177*179*179*178							*175*171*165*157*148*136					*120*105*105*105*105*105					
15	.81	.82	.83	.84	.85	.86	.87	.87	.88	.88	.88	.88	.89	.87	.86	.85	.84	.83	.82	.80	.79	.77	.75
	*91*105*118*129*138*146					*154*158*162*164*164*163							*160*150*143*133*122					*105*033*033*033*033*033					
30	.80	.81	.82	.83	.84	.85	.85	.86	.86	.87	.87	.85	.86	.86	.85	.84	.83	.82	.80	.79	.77	.75	.73
	*070*085*097*109*118*126					*134*139*143*145*146*145							*143*136*133*125*115*104					*087*071*052*032*009					
45	.78	.79	.80	.81	.82	.83	.84	.84	.85	.85	.85	.85	.84	.84	.84	.83	.82	.80	.79	.77	.75	.74	.71
	*046*061*074*085*095*103					*112*117*121*123*124*124							*121*117*112*104*094*083					*066*042*030*009					
1400	.76	.77	.78	.79	.80	.81	.82	.82	.83	.83	.83	.82	.83	.82	.81	.80	.80	.78	.77	.75	.73	.72	.69
	*019*033*047*058*069*077					*086*092*096*099*100*099							*097*093*087*080*070*058					*041*024*004					
15	.73	.75	.76	.77	.78	.79	.80	.80	.81	.81	.81	.80	.80	.79	.79	.78	.78	.76	.75	.73	.71	.69	.67
	*988*003*016*028*039*048					*057*063*068*071*072*072							*070*066*060*052*042*030					*013*995*975*953*929*902					
30	.71	.72	.73	.75	.75	.76	.77	.78	.78	.79	.79	.77	.76	.76	.78	.77	.76	.75	.74	.72	.71	.69	.65
	954 969 983 996*007*016					*026*032*037*040*042*041							*040*036*030*022*012*099					981 964 943 921 896 868					
45	.68	.70	.71	.72	.73	.74	.75	.75	.76	.76	.76	.76	.76	.75	.75	.74	.73	.71	.70	.68	.66	.64	.62
	918 933 947 960 971 981					991 998*003*006*008*008							*006*003 997 989 978 966					947 929 908 885 859 831					
1500	.65	.67	.68	.69	.70	.71	.72	.72	.73	.73	.73	.72	.73	.72	.71	.70	.70	.68	.67	.65	.63	.61	.59
	878 894 909 922 933 944					954 961 966 970 972 972							971 967 961 953 942 929					910 892 870 847 820 792					
15	.62	.64	.65	.66	.67	.68	.69	.69	.70	.71	.71	.70	.70	.69	.68	.67	.67	.65	.64	.63	.60	.58	.56
	836 853 867 881 893 904					915 922 928 932 934 934							932 929 922 914 903 890					871 852 830 806 779 749					
30	.59	.60	.62	.63	.64	.65	.66	.66	.67	.67	.68	.67	.67	.67	.66	.65	.64	.62	.61	.59	.57	.55	.52
	792 809 824 838 850 861					873 880 886 891 893 893							892 888 882 873 862 848					829 809 787 762 735 705					
45	.55	.57	.58	.59	.60	.61	.62	.63	.64	.64	.64	.64	.64	.63	.63	.62	.61	.59	.57	.55	.54	.51	.49
	745 762 778 792 805 817					829 837 843 847 850 851							849 845 839 830 819 805					784 764 742 716 688 658					

MAY-AUG 48 N TABLE B-1 SOLAR PARAMETERS COS Z =₁
XO (W/M**2.) *** SIGNIFIES COS Z =₁
ADD 1000 TO VALUES PRECEDED BY .

MST	MAY					JUN					DATE					AUG									
	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
1600	.52	.53	.55	.56	.57	.58	.59	.60	.60	.61	.61	.61	.60	.60	.59	.58	.57	.55	.54	.52	.50	.48	.45		
697	714	730	745	759	771	783	791	798	802	805	806	804	809	794	785	773	759	738	717	694	668	639	608		
15	.48	.50	.51	.52	.53	.54	.55	.56	.57	.57	.57	.57	.57	.56	.56	.55	.54	.52	.50	.48	.46	.44	.41		
646	664	681	696	710	722	735	744	751	756	758	759	757	753	747	738	726	711	689	663	645	618	589	557		
30	.44	.46	.47	.48	.50	.51	.52	.52	.53	.53	.54	.54	.54	.53	.53	.52	.51	.50	.48	.45	.44	.42	.40	.38	
595	613	630	646	660	673	686	695	702	707	710	711	709	705	698	689	676	661	639	613	593	566	537	504		
45	.40	.42	.43	.44	.46	.47	.48	.49	.49	.50	.50	.50	.50	.50	.50	.49	.48	.47	.46	.44	.42	.41	.38	.36	.34
541	560	578	594	609	622	635	645	652	657	661	661	660	655	648	638	626	610	588	563	541	513	463	450		
1700	.36	.38	.39	.41	.42	.43	.44	.45	.45	.46	.46	.46	.46	.46	.45	.44	.43	.42	.40	.38	.37	.34	.32	.29	
487	506	524	541	556	570	584	594	601	607	610	611	609	624	597	587	574	558	535	512	457	459	428	395		
15	.32	.34	.35	.36	.38	.39	.40	.41	.41	.42	.42	.42	.42	.42	.41	.40	.39	.38	.36	.34	.32	.30	.28	.25	
431	451	470	487	503	517	531	541	549	555	558	559	557	552	545	535	521	505	481	453	422	403	372	338		
30	.28	.30	.31	.32	.34	.35	.36	.37	.37	.38	.38	.38	.38	.38	.37	.36	.35	.34	.32	.30	.28	.26	.24	.21	
375	396	415	433	449	463	478	488	497	502	506	506	504	500	492	481	468	451	426	403	376	347	315	281		
45	.24	.25	.27	.28	.30	.31	.32	.33	.33	.34	.34	.32	.34	.34	.33	.32	.31	.30	.28	.25	.24	.22	.19	.17	
319	340	359	378	394	409	425	435	443	449	453	453	451	446	438	427	413	396	371	347	320	290	258	223		
1800	.20	.21	.23	.24	.26	.27	.28	.29	.29	.30	.30	.30	.30	.30	.29	.28	.27	.26	.24	.22	.20	.17	.15	.12	
262	284	304	323	340	355	371	382	390	396	403	400	397	392	385	373	359	341	316	291	271	233	200	165		
15	.15	.17	.19	.20	.21	.23	.24	.25	.25	.26	.26	.26	.26	.26	.25	.24	.23	.22	.20	.13	.15	.13	.11	.08	
206	228	248	268	285	301	317	328	337	343	345	345	339	331	319	304	286	260	235	217	176	143	107			
30	.11	.13	.14	.16	.17	.19	.20	.21	.22	.22	.22	.22	.22	.22	.21	.20	.19	.17	.15	.13	.11	.09	.06	.04	
45	.07	.09	.10	.12	.13	.15	.16	.17	.17	.18	.18	.16	.16	.16	.16	.15	.13	.11	.09	.07	.05	.02	.00		
094	117	138	159	177	194	211	222	231	237	241	241	238	235	224	211	195	176	149	123	103	63	028	000		

MAY-AUG 48 N TABLE B-1 SOLAR PARAMETERS CGS² X0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY .

.. SIGNIFIES COS Z = 1.

MST	MAY					JUN					JUL					AUG							
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30	
1900	.03	.05	.06	.08	.09	.11	.12	.13	.14	.14	.14	.14	.13	.12	.11	.09	.07	.05	.03	.01	.00	.00	
	.039	.062	.085	.105	.124	.141	.158	.170	.179	.185	.189	.189	.186	.180	.171	.158	.142	.122	.095	.063	.039	.007	.000
15	.00	.01	.02	.04	.05	.07	.08	.09	.10	.10	.10	.10	.10	.10	.10	.10	.09	.08	.07	.05	.03	.01	.00
	.000	.009	.032	.053	.072	.089	.107	.119	.128	.134	.136	.138	.135	.128	.119	.106	.089	.069	.041	.014	.000	.000	.000
30	.00	.00	.00	.00	.02	.03	.04	.05	.06	.06	.07	.07	.06	.05	.04	.03	.01	.00	.00	.00	.00	.00	.00
	.000	.000	.000	.002	.021	.039	.057	.069	.078	.084	.084	.083	.084	.078	.068	.054	.037	.017	.000	.000	.000	.000	.000
45	.00	.00	.00	.00	.00	.00	.01	.02	.02	.03	.03	.03	.03	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00
	.000	.000	.000	.000	.000	.000	.008	.020	.029	.036	.039	.039	.035	.029	.018	.004	.000	.000	.000	.000	.000	.000	.000

MAY-AUG 48 N TABLE B-1 SOLAR PARAMETERS CCS² X0 (W/N**2.) *** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

NST	SEP					OCT					NOV					DEC					
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.013	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
45	.05	.03	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
50	.072	.046	.020	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
55																					
6000	.10	.08	.06	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6500	.130	.105	.079	.053	.026	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
70	.15	.14	.12	.10	.08	.06	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
75	.189	.164	.139	.112	.086	.058	.030	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
80	.247	.223	.197	.171	.145	.117	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
85	.45	.23	.21	.19	.17	.15	.13	.11	.09	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00
90	.305	.281	.256	.230	.203	.176	.148	.119	.089	.059	.029	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
95	.0700	.27	.25	.23	.21	.19	.17	.15	.13	.11	.08	.06	.04	.01	.00	.00	.00	.00	.00	.00	.00
100	.362	.338	.313	.287	.261	.233	.205	.176	.146	.116	.065	.055	.019	.000	.000	.000	.000	.000	.000	.000	.000
105	.15	.31	.29	.27	.25	.23	.21	.19	.17	.15	.12	.10	.08	.05	.03	.01	.00	.00	.00	.00	.00
110	.418	.394	.369	.344	.317	.290	.261	.232	.202	.172	.141	.110	.074	.04	.015	.000	.003	.000	.000	.000	.000
115	.30	.35	.33	.31	.29	.27	.25	.23	.21	.19	.16	.14	.12	.09	.07	.05	.03	.01	.00	.00	.00
120	.45	.472	.449	.424	.399	.372	.345	.316	.287	.257	.226	.195	.164	.127	.097	.068	.040	.014	.000	.000	.000
125	.526	.502	.478	.452	.426	.398	.369	.340	.310	.279	.246	.216	.179	.142	.119	.091	.065	.041	.019	.001	.000

SEP-DEC 48 N

TABLE B-1 SOLAR PARAMETERS CCS Z
X0 (W/m²•2.)

*** SIGNIFIES COS Z⁻¹
ADD 1000 TO VALUES PRECEDED BY -

MST	SEP					OCT					NOV					DEC					
	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20
0800	.43	.41	.39	.37	.35	.33	.31	.28	.26	.24	.22	.19	.16	.14	.12	.10	.08	.06	.05	.03	.02
	577	554	529	504	477	449	421	391	360	329	298	266	223	196	169	140	114	90	669	653	635
15	.47	.45	.43	.41	.39	.37	.36	.32	.30	.27	.25	.23	.23	.18	.15	.13	.12	.10	.08	.07	.06
	627	603	579	553	527	499	470	440	409	378	346	314	276	246	216	188	161	137	116	105	93
30	.50	.48	.46	.44	.42	.40	.38	.35	.33	.31	.28	.26	.23	.21	.19	.17	.15	.13	.11	.13	.09
	674	651	626	601	574	546	517	486	455	424	392	360	322	291	261	233	206	182	161	143	129
45	.53	.52	.50	.48	.45	.43	.41	.39	.36	.34	.31	.29	.25	.24	.22	.20	.18	.16	.15	.13	.11
	719	696	671	646	618	590	561	530	499	467	435	403	364	333	303	275	249	225	204	183	152
0900	.57	.55	.53	.51	.49	.46	.44	.42	.39	.37	.34	.32	.29	.27	.25	.22	.21	.19	.17	.15	.14
	762	738	714	688	660	632	602	572	540	508	475	443	404	373	343	315	289	265	244	227	202
15	.59	.58	.56	.54	.51	.49	.47	.44	.42	.40	.37	.35	.442	.410	.380	.352	.326	.302	.282	.264	.251
	802	778	753	727	700	671	641	610	578	546	513	490	476	444	414	386	360	336	316	297	270
30	.62	.60	.58	.56	.54	.52	.49	.47	.44	.42	.40	.37	.34	.32	.30	.28	.26	.24	.22	.21	.19
	838	815	790	763	736	707	676	645	613	580	547	514	506	475	445	417	391	368	348	331	316
45	.65	.63	.61	.59	.56	.54	.52	.49	.47	.44	.42	.39	.36	.34	.32	.30	.28	.26	.25	.23	.22
	872	849	823	797	769	739	709	677	645	612	578	545	506	475	445	417	391	368	348	331	316
1000	.67	.65	.63	.61	.59	.56	.54	.51	.49	.46	.44	.41	.39	.36	.34	.32	.30	.28	.27	.25	.24
	903	879	854	827	798	768	738	706	673	640	606	573	534	502	472	444	419	396	376	363	347
15	.69	.67	.65	.63	.61	.58	.63	.59	.56	.53	.51	.48	.46	.43	.40	.38	.35	.33	.30	.28	.27
	930	906	880	853	824	794	763	731	698	664	630	597	553	526	496	468	443	420	401	385	373
30	.71	.69	.67	.64	.62	.60	.67	.55	.52	.50	.47	.44	.42	.39	.37	.35	.33	.31	.30	.28	.27
	954	930	904	876	847	816	785	752	719	685	651	618	573	547	517	489	464	441	422	407	395
45	.72	.70	.68	.66	.64	.61	.69	.56	.53	.51	.48	.46	.43	.40	.38	.36	.34	.33	.31	.30	.29
	974	950	923	895	866	835	803	770	736	702	668	634	595	564	534	506	481	459	440	425	414

SEP-DEC

48 N

TABLE B-1

SOLAR PARAMETERS

CGS Z
X0 (W/M**2.)

** SIGNIFIES COS Z = 1.

ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					NOV					DEC								
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	30			
1100	.74	.71	.69	.67	.65	.62	.60	.57	.54	.52	.49	.47	.44	.41	.39	.37	.35	.34	.32	.31	.30	.30	.30	
	991	966	939	911	881	850	817	784	750	716	681	648	605	577	547	520	495	473	455	445	430	423	421	424
15	.75	.72	.70	.68	.65	.63	.60	.58	.55	.52	.50	.47	.44	.42	.40	.38	.36	.34	.33	.32	.31	.31	.31	.31
*004	979	951	923	892	861		828	794	760	725	691	657	617	585	557	529	505	484	466	452	442	436	434	437
30	.75	.73	.71	.68	.66	.64	.61	.58	.56	.53	.50	.48	.45	.42	.40	.38	.36	.35	.34	.33	.32	.31	.31	.32
*013	987	960	931	900	868		834	800	766	731	696	652	623	592	562	535	511	490	473	454	.50	444	443	447
45	.76	.73	.71	.69	.66	.64	.61	.58	.56	.53	.50	.48	.45	.43	.40	.38	.37	.35	.34	.33	.32	.32	.32	.32
*019	992	964	935	903	871		837	803	768	733	698	664	624	593	564	538	514	493	476	454	449	449	453	
1200	.76	.74	.71	.69	.66	.64	.61	.58	.56	.53	.50	.48	.45	.42	.40	.38	.37	.35	.34	.33	.32	.32	.32	.32
*020	994	965	935	903	870		836	801	766	731	696	662	622	591	562	536	513	492	476	463	455	451	451	456
15	.76	.73	.71	.69	.66	.63	.61	.58	.55	.52	.50	.47	.44	.42	.40	.38	.36	.35	.34	.33	.32	.32	.32	.32
*018	991	962	931	899	865		831	796	760	725	690	655	616	585	557	531	508	488	472	460	.52	448	449	454
30	.75	.73	.70	.68	.65	.63	.60	.57	.54	.52	.49	.46	.44	.41	.39	.37	.36	.34	.33	.32	.31	.31	.31	.32
*012	984	955	923	891	857		822	786	751	715	680	645	606	576	547	521	499	480	464	453	.45	442	444	449
45	.74	.72	.70	.67	.65	.62	.59	.56	.53	.51	.48	.45	.43	.40	.38	.36	.35	.33	.32	.31	.31	.31	.31	.31
*002	974	944	912	879	844		809	773	737	701	666	632	593	562	534	509	466	468	453	.442	.435	432	434	441
1300	.73	.71	.69	.66	.63	.61	.58	.55	.52	.49	.47	.44	.41	.39	.37	.35	.33	.32	.31	.30	.30	.30	.30	.30
	988	960	929	897	863	828	792	756	720	684	648	614	575	545	517	492	470	452	437	427	421	419	421	428
15	.72	.70	.67	.65	.62	.59	.56	.54	.51	.48	.45	.43	.40	.38	.35	.34	.32	.31	.30	.29	.29	.29	.29	.29
971	942	911	878	844	808		772	735	699	663	627	593	554	524	496	472	450	433	419	405	405	405	412	
30	.71	.68	.66	.63	.60	.57	.55	.52	.49	.46	.43	.41	.34	.36	.34	.32	.30	.29	.26	.27	.27	.27	.27	.28
950	920	888	855	820	785		748	711	674	638	602	568	530	472	448	427	410		397	387	382	381	385	393
45	.69	.66	.64	.61	.58	.55	.53	.50	.47	.44	.41	.39	.36	.34	.32	.30	.29	.27	.26	.26	.26	.26	.26	.26
926	895	863	829	794	757		721	683	646	610	574	540	501	472	445	421	401	384	371	362	353	357	361	370

SEP-DEC 48 N TABLE B-1 SOLAR PARAMETERS $C_{02} Z X_0 (W/m^2 \cdot 2)$

... SIGNIFIES COS Z
ADD 1000 TO VALUES PRECEDED BY .

SEP-DEC	48 N	TABLE B-1	SOLAR PARAMETERS	COS Z (W/M**2.)	DATE												DEC						
					5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1400	898	867	834	799	764	727	690	652	615	578	543	508	470	432	391	354	342	330	330	335	343		
15	64	62	59	56	53	48	45	42	39	37	34	31	29	27	26	24	22	21	21	23	24	24	
30	62	59	57	54	51	55	52	50	48	45	42	39	37	34	32	30	28	26	25	24	23	22	
45	59	56	54	51	48	618	580	543	508	474	455	428	390	357	338	322	305	305	305	305	305	314	
1500	754	721	686	649	612	573	534	496	458	421	385	352	314	286	261	239	221	207	196	193	190	197	207
15	53	50	47	45	42	39	36	33	30	28	25	22	19	17	15	14	13	12	11	10	11	11	12
30	49	47	44	41	38	35	32	29	26	24	21	19	16	14	12	11	08	06	07	07	08	09	
45	46	43	40	37	34	31	28	26	23	20	17	15	12	10	09	07	06	05	04	04	04	05	05
1600	568	532	495	457	417	377	338	298	260	223	188	155	116	091	068	048	019	010	003	005	009	017	028
15	38	36	33	30	27	24	21	18	15	12	10	07	05	03	01	00	00	00	00	00	00	00	00
30	34	32	29	26	23	20	17	14	11	08	06	03	01	00	00	00	00	00	00	00	00	00	
45	30	27	25	22	19	15	12	10	07	04	02	00	00	00	00	00	00	00	00	00	00	00	
	408	371	332	292	252	211	171	131	092	056	021	000	000	000	000	000	000	000	000	000	000	000	

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					NOV					DEC						
	5	10	15	20	30	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30
1700	.26	.23	.20	.17	.14	.11	.08	.05	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	352	314	275	235	194	153	112	073	034	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.22	.19	.16	.13	.10	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	295	256	217	176	135	094	054	014	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.18	.15	.12	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	237	198	158	117	076	035	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.13	.10	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	178	139	099	058	017	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
1800	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	120	080	040	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	061	022	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	003	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

SEP-DEC 48 N TABLE B-1 SOLAR PARAMETERS $\cos Z = 1.$ $x_0 (w/m^2 \cdot \text{sr}^{-1})$ ADD 1000 TO VALUES PRECEDED BY -
 *** SIGNIFIES $\cos Z = 1.$
 ADD 1000 TO VALUES PRECEDED BY -

MST	DATE												APR												
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
0500 .00																									
15 .00																									
30 .00																									
45 .00																									
0600 .00																									
15 .00																									
30 .00																									
45 .00																									
0700 .00																									
15 .00																									
30 .03 .03 .03 .03 .04 .04 .05 .06																									
45 .07 .07 .07 .08 .08 .09 .10																									
099 .098 100 106 116 129 146	JAN	APR	TABLE B-1	SOLAR PARAMETERS	COS Z (W/M**2.)	*** SIGNIFIES COS Z = 1. ADD 1000 TO VALUES PRECEDED BY *																			

JAN-APR 38 N

X0 (W/M**2.)

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *PREVIOUS PAGE
IS BLANK

C

MST	JAN					FEB					DATE					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30	
0800	.11	.11	.11	.12	.13	.14	.15	.17	.18	.20	.23	.25	.21	.31	.34	.36	.39	.42	.45	.47	.49	.51	.53	.54	
	158	158	161	161	167	178	191	209	234	258	285	315	346	393	434	468	503	537	570	608	633	664	691	714	734
15	.15	.15	.16	.16	.17	.18	.19	.21	.23	.25	.27	.29	.36	.38	.41	.44	.46	.49	.51	.53	.55	.57	.59		
	216	216	219	226	237	252	270	295	320	347	377	408	462	496	530	565	599	631	668	693	724	749	771	791	
30	.19	.19	.20	.21	.22	.23	.24	.25	.27	.29	.31	.34	.36	.40	.43	.45	.48	.50	.53	.53	.57	.59	.61	.63	
	271	271	275	283	295	310	326	354	379	407	437	468	522	556	590	624	657	690	726	754	781	805	826	845	
45	.23	.23	.24	.24	.25	.26	.27	.29	.31	.33	.35	.28	.42	.44	.47	.49	.52	.54	.57	.59	.61	.63	.65	.66	
	324	324	329	337	349	365	384	411	436	464	494	526	579	613	647	681	713	745	781	803	834	857	878	896	
0900	.26	.27	.27	.28	.28	.30	.31	.33	.35	.37	.39	.42	.46	.48	.51	.53	.56	.58	.61	.63	.65	.67	.69	.70	
	373	373	380	389	401	418	437	464	490	519	549	581	634	667	701	734	767	798	833	863	885	907	927	945	
15	.30	.30	.31	.32	.32	.33	.35	.37	.39	.41	.43	.45	.49	.52	.54	.57	.59	.62	.64	.67	.69	.70	.72	.73	
	420	422	428	437	450	467	487	515	541	570	600	632	685	719	752	785	817	847	881	903	932	954	973	990	
30	.33	.33	.33	.34	.35	.36	.38	.40	.42	.44	.46	.49	.53	.55	.58	.60	.63	.65	.68	.70	.72	.74	.75	.77	
	463	466	472	482	496	513	534	563	589	618	648	680	733	766	799	832	863	893	927	952	976	997	*016	*032	
45	.36	.36	.37	.38	.39	.41	.43	.45	.47	.50	.52	.56	.56	.61	.63	.66	.68	.71	.73	.75	.76	.78	.79		
	503	506	513	524	538	556	577	607	633	662	693	725	778	811	843	875	906	935	968	993	016	.037	*055	*071	
1000	.38	.38	.39	.40	.41	.42	.44	.46	.48	.50	.52	.55	.53	.61	.64	.66	.69	.71	.74	.75	.77	.79	.81	.82	
	540	543	551	562	577	596	617	647	674	703	734	766	818	851	883	915	945	974	*006	*031	*053	*073	*091	*106	
15	.40	.41	.41	.42	.43	.45	.46	.49	.51	.53	.55	.58	.61	.64	.66	.69	.71	.74	*040	*064	*085	*105	*122	*137	
	572	576	584	596	612	631	653	683	711	740	771	803	855	888	920	951	980	009							
30	.42	.43	.43	.44	.46	.47	.49	.51	.53	.55	.57	.60	.64	.66	.69	.71	.74	.76	.78	.80	.82	.84	.85	.86	
	601	605	614	627	643	663	685	716	744	773	804	836	888	920	952	982	011	039	*070	*093	*114	*133	*150	*164	
45	.44	.45	.45	.46	.47	.49	.51	.53	.55	.57	.60	.62	.66	.68	.71	.73	.75	.78	.80	.82	.84	.85	.87	.88	
	625	630	640	653	670	690	713	744	773	802	833	865	917	948	980	010	038	065	*095	*119	*139	*157	*173	*187	

TABLE B-1 SOLAR PARAMETERS $\cos^2 Z$
 X_0 (W/M² * 2.)

*** SIGNIFIES $\cos^2 Z = 1$.
ADD 1000 TO VALUES PRECEDED BY *

MST	JAN					FEB					DATE					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1100	.46	.47	.48	.49	.51	.52		.55	.57	.59	.61	.64		.65	.70	.72	.75	.77	.79	
	646	651	662	676	693	714	737	769	797	827	858	890		941	.972	.003	*033	*061	*087	
15	.47	.47	.48	.49	.50	.52	.54	.56	.58	.60	.63	.65		.69	.71	.74	.76	.78	.81	
	662	668	679	694	712	733	757	789	817	847	878	910		961	.992	.022	*051	*079	*105	
30	.48	.48	.49	.50	.51	.53	.55	.57	.59	.62	.64	.66		.70	.73	.75	.77	.79	.81	
	674	680	692	707	726	748	772	804	833	863	894	926		976	.007	.037	-065	*092	.118	
45	.48	.49	.50	.51	.52	.54	.56	.58	.60	.62	.65	.67		.71	.73	.76	.78	.80	.82	
	681	689	701	717	736	758	783	815	844	874	905	937		987	.017	.047	*075	*101	*126	
1200	.48	.49	.50	.51	.52	.54	.56	.58	.61	.63	.65	.68		.71	.74	.76	.78	.80	.82	
	685	692	705	722	741	764	789	822	851	881	912	943		993	.023	.052	-080	*106	.130	
15	.48	.49	.50	.51	.53	.54	.56	.59	.61	.63	.65	.68		.71	.74	.76	.78	.80	.82	
	683	692	705	722	742	765	791	824	853	883	914	945		994	.024	.052	-080	*105	.129	
30	.48	.49	.50	.51	.52	.54	.56	.58	.61	.63	.65	.67		.71	.74	.76	.78	.80	.82	
	678	686	701	718	739	762	788	821	850	881	911	942		991	.020	.058	-075	*100	.124	
45	.47	.48	.49	.50	.52	.53	.55	.58	.60	.62	.65	.67		.71	.73	.75	.77	.79	.81	
	668	677	692	710	731	754	780	814	843	873	904	935		983	.012	.040	-066	*091	.114	
1300	.46	.47	.48	.49	.51	.53	.55	.57	.59	.61	.64	.66		.70	.72	.74	.76	.78	.80	
	654	663	678	697	718	742	768	802	832	862	892	923		970	.59	.026	-052	*077	.099	
15	.45	.46	.47	.48	.50	.51	.53	.56	.58	.60	.62	.65		.63	.67	.73	.75	.77	.79	
	635	645	661	680	701	726	752	786	815	846	876	906		953	.082	.039	-034	-058	.080	
30	.43	.44	.45	.47	.48	.50	.52	.54	.57	.59	.61	.63		.67	.68	.71	.73	.75	.77	
	612	623	639	658	680	705	732	765	795	825	855	885		932	.56	.95	-011	-035	.056	
45	.41	.42	.43	.45	.46	.48	.50	.53	.55	.57	.59	.62		.65	.67	.69	.71	.73	.75	
	585	596	613	633	655	680	707	741	770	800	830	860		906	.933	959	984	*007	.029	

JAN-APR N TABLE B-1 SOLAR PARAMETERS CCS Z X0 (W/m²••2.)

.. SIGNIFIES COS Z = 1.
ACD 1000 TO VALUES PRECEDED BY *

MST	1	5	10	15	20	25	30	DATE						APR																
								JAN						FEB						MAR						APR				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1400	.39	.40	.41	.43	.44	.46	.48	.51	.53	.55	.57	.59	.63	.65	.67	.69	.71	.73	.75	.75	.77	.79	.80	.81	.020	.037	.050	.068	.081	.093
555	566	583	603	626	651	677	711	741	771	800	830	875	903	928	953	976	997													
15	.37	.38	.39	.40	.42	.44	.46	.48	.50	.53	.55	.57	.60	.63	.65	.66	.68	.70	.72	.73	.75	.76	.77	.78	.984	.001	.017	.031	.044	.056
520	532	549	569	592	617	644	678	708	737	767	795	841	868	893	917	940	961													
30	.34	.35	.36	.38	.39	.41	.43	.46	.48	.50	.52	.54	.55	.60	.62	.64	.65	.67	.69	.70	.72	.73	.74	.75	.943	.951	.977	.991	.004	.016
482	494	511	532	555	580	607	641	670	700	729	758	803	829	854	878	900	921													
45	.31	.32	.33	.35	.36	.38	.40	.43	.45	.47	.49	.51	.55	.57	.59	.60	.62	.64	.66	.67	.69	.70	.71	.72	.900	.917	.933	.947	.961	.973
440	452	470	491	514	540	567	600	629	659	688	716	760	786	811	835	857	877													
1500	.28	.29	.30	.32	.33	.35	.37	.40	.42	.44	.46	.48	.51	.53	.55	.57	.59	.60	.62	.64	.65	.66	.68	.69	.852	.863	.885	.900	.914	.926
395	407	426	447	470	495	522	556	585	614	642	671	714	740	765	788	809	830													
15	.25	.25	.27	.28	.30	.32	.34	.36	.38	.40	.42	.45	.48	.50	.52	.53	.55	.57	.59	.60	.61	.63	.64	.65	.802	.813	.835	.850	.864	.877
346	359	378	399	422	448	474	508	537	565	594	622	665	690	715	738	759	779													
30	.21	.22	.23	.25	.26	.28	.30	.32	.35	.37	.39	.41	.44	.46	.48	.50	.51	.53	.55	.56	.57	.59	.60	.61	.748	.765	.781	.797	.811	.824
295	308	327	348	371	397	424	457	485	514	542	570	612	637	661	684	705	726													
45	.17	.18	.19	.21	.23	.24	.26	.29	.31	.33	.35	.37	.40	.42	.44	.46	.47	.49	.51	.52	.53	.55	.56	.57	.691	.703	.725	.741	.755	.769
241	254	273	294	318	343	370	403	431	459	487	514	557	581	605	628	649	669													
1600	.13	.14	.15	.17	.19	.20	.22	.25	.27	.29	.31	.33	.36	.38	.40	.41	.43	.44	.46	.48	.49	.50	.52	.53	.632	.650	.665	.682	.697	.711
185	198	217	238	262	287	313	346	374	402	429	456	498	523	546	569	590	610													
15	.09	.10	.11	.13	.14	.16	.18	.20	.22	.24	.26	.28	.31	.33	.35	.37	.38	.40	.42	.43	.45	.46	.47	.48	.507	.525	.542	.559	.574	.590
126	139	158	179	203	228	254	286	314	342	369	396	437	461	485	507	528	548													
30	.05	.06	.07	.08	.10	.12	.14	.16	.18	.20	.22	.24	.27	.29	.30	.32	.34	.35	.37	.39	.40	.41	.43	.44	.37	.39	.40	.41	.43	.44
605	678	907	119	142	167	193	225	252	279	306	333	374	398	421	443	464	484													
45	.00	.01	.03	.04	.06	.07	.09	.11	.13	.15	.17	.19	.22	.24	.26	.27	.29	.31	.32	.34	.35	.36	.38	.39	.442	.460	.478	.494	.511	.526
603	616	635	656	679	104	129	161	188	215	242	268	308	332	355	378	399	419													

JAN-APR 38 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.) *** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

NST	DATE																											
	1	5	10	15	20	25	5	10	15	20	25	30																
	FEB																											
1700	.00	.00	.00	.01	.03	.05	.07	.09	.11	.13	.14	.17	.19	.21	.23	.24	.26	.27	.29	.30	.32	.33	.34					
	000	000	000	000	015	039	064	096	122	149	175	201	241	265	288	310	331	352	375	393	411	429	445	462				
15	.00	.00	.00	.00	.00	.00	.02	.04	.06	.08	.10	.029	.055	.081	.108	.133	.173	.196	.219	.241	.263	.283	.307	.325	.344	.362	.379	.396
30	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	.05	.000	.000	.013	.038	.064	.000	.127	.150	.172	.193	.214	.238	.257	.276	.294	.312	.329
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.000	.000	.000	.000	.000	.002	.04	.06	.07	.09	.10	.12	.14	.15	.17	.18	.19
	000	000	000	000	000	000	000	000	000	000	000	033	056	079	101	123	143	168	183	207	226	244	262					
1800	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.000	.000	.000	.000	.000	.000	.01	.02	.04	.05	.05	.07	.09	.10	.12	.13	.14
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.000	.000	.000	.000	.000	.000	.00	.00	.00	.00	.00	.002	.01	.025	.07	.08	.09
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.000	.000	.000	.000	.000	.000	.00	.00	.00	.00	.00	.000	.003	.003	.020	.040	.060
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.000	.000	.000	.000	.000	.000	.00	.00	.00	.00	.00	.000	.000	.000	.000	.000	.000

JAN-APR 38 N TABLE B-1 SOLAR PARAMETERS $\cos^2 z^{*1}$
 $x_0 (w/n**2.)$ ADD 1000 TO VALUES PRECEDED BY .

TABLE B-1 SOLAR PARAMETERS COS Z X_O (W/M²*2.) SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY

PREVIOUS PAGE
IS BLANK

NST	MAY										JUN										DATE										AUG									
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30										
0700	.38	.39	.40	.41	.42	.43	.43	.43	.43	.43	.43	.42	.41	.41	.40	.39	.38	.37	.36	.35	.34	.32	.31	.30	.476	.462	.433	.418	.402											
	507	524	539	551	560	566	570	571	570	567	562	556	543	539	529	517	505	492																						
15	.42	.44	.45	.46	.47	.47	.47	.48	.48	.47	.47	.47	.46	.45	.45	.44	.43	.42																						
	571	587	601	612	621	627	631	632	630	627	623	616	603	603	590	579	567	555																						
30	.47	.48	.49	.50	.51	.52	.52	.52	.52	.52	.52	.51	.50	.50	.49	.48	.47	.46																						
	633	649	662	673	681	686	690	691	689	686	682	675	668	659	650	639	628	616																						
45	.52	.53	.54	.55	.55	.56	.56	.56	.56	.56	.56	.55	.55	.54	.54	.53	.52	.51																						
	693	708	721	731	739	744	747	748	747	744	739	733	726	717	708	698	687	676																						
0800	.56	.57	.58	.59	.60	.60	.60	.61	.61	.60	.60	.60	.59	.59	.58	.57	.56	.55																						
	751	766	778	788	795	800	803	803	802	799	794	789	782	774	765	755	745	734																						
15	.60	.61	.62	.63	.64	.64	.64	.65	.65	.64	.64	.64	.63	.63	.62	.61	.60	.60																						
	807	822	833	843	849	854	857	857	855	852	848	842	836	828	820	811	801	790																						
30	.64	.65	.66	.67	.68	.68	.68	.68	.68	.68	.68	.68	.67	.67	.66	.65	.64	.64																						
	861	875	886	895	901	905	908	908	907	904	899	894	888	880	872	863	854	844																						
45	.68	.69	.70	.71	.71	.72	.72	.72	.72	.72	.72	.71	.71	.70	.70	.69	.68	.67																						
	912	925	936	944	950	954	957	957	955	952	948	943	937	930	922	914	905	895																						
0900	.71	.72	.73	.74	.75	.75	.75	.76	.76	.75	.75	.75	.74	.74	.73	.73	.72	.71																						
	960	973	983	991	996	1000	+002	-002	*001	998	994	950	984	977	970	962	953	944																						
15	.75	.76	.77	.77	.78	.78	.79	.79	.79	.78	.78	.78	.78	.77	.77	.76	.75	.75																						
	*005	*017	*027	*034	*040	*043	*045	*045	*044	*041	*038	*033	*023	*021	-014	-007	998	990																						
30	.78	.79	.80	.81	.81	.81	.82	.82	.82	.81	.81	.81	.81	.80	.80	.79	.78	.78																						
	*046	*058	*067	*075	*080	*083	*085	*085	*084	*081	*078	*074	*068	*062	-056	-049	-041	*032																						
45	.81	.82	.83	.83	.84	.84	.84	.85	.85	.84	.84	.84	.84	.83	.83	.82	.81	.81																						
	*084	*096	*105	*112	*117	*120	*122	*122	*121	*118	*115	*111	*106	*100	-094	-087	-080	-071																						

MAY-AUG

38 N

TABLE B-1

SOLAR PARAMETERS

CGS

Z

X0 (W/M**2.)

*** SIGNIFIES COS Z = 1.

ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					JUL					AUG							
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30					
1000	.83	.84	.85	.86	.86	.87	.87	.87	.87	.87	.87	.87	.86	.85	.84	.83	.82	.81	.80	.78	.77		
	*119*130*138*145*150*153						*155*154*152*149*145						*140*135*129*122*115*107				*097*087*076*065*052*038						
15	.85	.86	.87	.88	.88	.89	.89	.89	.89	.89	.89	.89	.88	.88	.87	.86	.85	.84	.83	.82	.81	.80	
	*149*160*168*175*179*182						*184*184*183*182*179*175						*171*166*160*154*147*139				*129*120*109*097*085*071						
30	.87	.88	.89	.90	.90	.91	.91	.91	.91	.91	.91	.91	.90	.90	.89	.88	.87	.86	.85	.84	.83	.82	
	*176*186*194*200*205*208						*210*210*209*208*205*202						*198*193*185*182*175*168				*158*143*138*126*113*099						
45	.89	.90	.91	.91	.92	.92	.93	.93	.93	.93	.93	.92	.92	.92	.91	.90	.89	.88	.87	.86	.85	.84	
	*199*208*216*222*227*230						*232*232*232*230*228*225						*221*217*212*206*200*192				*182*173*163*151*138*123						
1100	.90	.91	.92	.93	.93	.94	.94	.94	.94	.94	.94	.94	.93	.93	.92	.91	.90	.90	.89	.88	.86	.85	
	*217*226*234*240*245*248						*250*250*250*249*247*244						*241*237*232*226*220*213				*203*194*193*171*158*143						
15	.92	.92	.93	.94	.94	.95	.95	.95	.95	.95	.95	.95	.95	.94	.94	.93	.93	.92	.91	.90	.89	.88	.86
	*231*240*248*254*258*261						*264*264*264*263*262*259						*250*252*252*243*236*229				*220*210*200*188*174*159						
30	.92	.93	.94	.94	.95	.95	.96	.96	.96	.96	.96	.96	.95	.95	.95	.94	.93	.92	.91	.90	.88	.87	
	*241*250*257*263*268*271						*273*274*275*274*272*270						*268*264*260*255*249*242				*232*226*212*200*186*170						
45	.93	.94	.94	.95	.95	.96	.96	.97	.97	.97	.97	.96	.96	.95	.95	.94	.93	.92	.91	.90	.89	.88	
	*247*255*263*269*273*277						*279*280*281*280*279*277						*275*272*258*263*257*250				*240*231*230*207*193*177						
1200	.93	.94	.94	.95	.96	.96	.96	.97	.97	.97	.97	.96	.96	.96	.95	.94	.94	.93	.92	.90	.89	.88	
	*248*256*264*270*274*278						*281*282*283*283*282*280						*275*275*271*267*261*254				*244*231*233*216*196*180						
15	.93	.93	.94	.94	.95	.96	.96	.96	.97	.97	.97	.97	.96	.96	.96	.94	.93	.93	.92	.90	.89	.88	
	*244*253*261*267*271*275						*278*280*281*281*281*279						*277*274*271*266*261*254				*244*231*222*209*194*178						
30	.92	.93	.94	.94	.95	.95	.96	.96	.96	.96	.96	.96	.95	.95	.94	.94	.93	.92	.91	.90	.89	.87	
	*237*246*253*259*264*268						*272*274*275*275*274						*270*270*266*262*256*249				*239*222*217*204*188*171						
45	.91	.92	.93	.93	.94	.94	.95	.95	.95	.95	.95	.95	.95	.95	.94	.93	.92	.92	.90	.89	.88	.86	
	*225*234*241*248*253*257						*261*263*265*265*265*265						*263*251*257*253*247*240				*230*230*208*194*178*160						

MAY-AUG 38 N TABLE B-1 SOLAR PARAMETERS CCS Z ADD 1000 TO VALUES PRECEDED BY -
 ADD (W/N* *2.) ^{1.} SIGNIFIES COS Z = 1.

MST	MAY					JUN					DATE					JUL					AUG																
	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30														
1300	.90	.91	.92	.93	.93	.94	.94	.94	.95	.95	.94	.94	.94	.94	.93	.92	.91	.91	.89	.88	.87	.85															
	209	218*	225*	232*	237*	242	*246*	248*	250*	251*	252*	251	*250	243*	245*	240	235	227	*217*	205	193	180*	163*	145													
15	.88	.89	.90	.91	.92	.92	.93	.93	.93	.93	.93	.93	.93	.93	.92	.92	.91	.90	.86	.83	.87	.85	.84														
	189	198*	205*	212*	218*	222	*227*	230*	232*	234*	234	*233	231	228	223	218	210	*200*	187	175	161	144*	125														
30	.87	.87	.88	.89	.90	.90	.91	.91	.91	.92	.92	*204*	208*	210*	212	213	213	*212	210	207	202*	197	189														
	164	173*	181*	188*	194*	199	*178*	181*	184*	186*	186*	*187	188	*187	185	182	178	172	164	*187	185	182	178	172													
45	.84	.85	.86	.87	.87	.88	.89	.89	.90	.90	.90	*136*	145*	153*	160*	167*	172	*136	141	141	137	131	127	111*	093*	073											
	103	113*	121*	129*	136*	141	*147*	151*	155*	157*	159*	159	*147	151	155	157*	159	159	*158	157	154	149	143	135	*123*	111	097	081*	062*	041							
15	.79	.80	.81	.82	.83	.83	.84	.84	.85	.85	.85	*067*	077*	086*	094*	101*	107	*113*	118*	121*	124*	126*	127	*126	125	122	117	111	102								
	028	038*	047*	055*	063*	069	*076*	081*	085*	088*	090*	091	*091	089	085	081	075*	066	*093	090	089	085	081	075	*053*	049	040	035	008	063*	046*	027*	005				
90	.73	.74	.75	.76	.77	.77	.78	.78	.79	.79	.79	*036*	041*	045*	048*	051*	052	*036*	041*	045*	048*	051*	052	*052	050	047	042*	035	026	*013*	003	003	003	003	003		
	984	995*	004*	013*	021*	028																															
1500	.70	.71	.72	.72	.73	.74	.75	.75	.76	.76	.76	*938	949	959	968	976	984	*992	998*	002*	006*	008*	010	*009	008*	005*	000	993	983	*970	953	939	920	899	876		
15	.66	.67	.68	.69	.70	.70	.71	.72	.72	.73	.73	*889	900	910	920	929	937	*945	951	956	960	963	964	*964	953	959	954	947	937	*923	903	891	872	850	826		
30	.62	.63	.64	.65	.66	.67	.67	.68	.68	.69	.69	*836	848	859	869	879	887	*896	902	908	912	915	917	*917	915	911	906	898	888	*873	853	841	821	798	773		
45	.58	.59	.60	.61	.62	.63	.64	.64	.65	.65	.65	*782	794	805	816	826	835	*844	851	857	861	864	866	*866	864	861	855	847	837	*821	805	787	767	743	718		

TABLE B-1 SOLAR PARAMETERS CGS Z
X0 (W/M²*2.) *** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

NST	MAY					JUN					DATE					AUG									
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30			
1600	.54	.55	.56	.57	.58	.59	.59	.60	.61	.61	.61	.61	.61	.61	.61	.59	.58	.56	.55	.53	.51	.49			
	724	737	749	760	771	780	790	797	803	808	812	813	813	811	808	802	793	783	767	755	731	710	660		
15	.49	.51	.52	.53	.54	.54	.55	.56	.56	.57	.57	.57	.57	.57	.57	.56	.55	.53	.52	.50	.49	.47	.45		
	665	678	691	703	713	723	734	742	748	753	757	758	758	756	752	746	737	726	710	693	673	651	627	600	
30	.45	.46	.47	.48	.49	.50	.51	.52	.52	.53	.53	.53	.53	.53	.53	.52	.51	.50	.49	.43	.45	.44	.42	.40	
	604	618	631	643	654	665	676	684	691	696	700	702	702	700	695	689	680	668	651	633	613	590	565	537	
45	.40	.41	.43	.44	.45	.45	.46	.47	.48	.48	.48	.49	.49	.49	.48	.48	.47	.46	.44	.43	.41	.39	.37	.35	
	541	556	569	582	594	605	617	625	632	638	641	643	643	641	626	629	620	608	590	572	551	528	502	473	
1700	.35	.37	.38	.39	.40	.41	.42	.43	.43	.44	.44	.44	.44	.44	.44	.43	.42	.41	.40	.33	.37	.35	.33	.30	
	477	492	506	520	532	544	556	565	572	578	581	583	583	581	576	569	559	546	528	509	489	464	437	408	
15	.31	.32	.33	.34	.35	.36	.37	.38	.39	.39	.40	.40	.40	.40	.39	.39	.38	.37	.36	.35	.33	.32	.30	.28	.25
	412	427	442	456	469	481	494	503	511	517	521	523	522	520	515	507	497	484	464	445	423	398	371	341	
30	.26	.27	.28	.29	.30	.31	.33	.33	.34	.34	.35	.35	.35	.35	.34	.34	.33	.32	.30	.29	.27	.25	.23	.20	
	346	362	377	392	406	418	431	441	449	455	459	461	460	458	452	444	434	420	400	382	357	332	304	274	
45	.21	.22	.23	.25	.26	.27	.28	.29	.30	.30	.30	.30	.30	.30	.29	.29	.28	.27	.25	.24	.22	.20	.18	.15	
	279	296	312	327	342	355	368	378	386	392	397	398	393	395	389	381	370	356	335	314	291	265	237	206	
1800	.16	.17	.18	.20	.21	.22	.23	.24	.24	.25	.25	.25	.25	.25	.25	.24	.23	.22	.20	.19	.17	.15	.13	.10	
	213	230	247	263	277	291	305	315	323	330	334	336	335	332	326	317	305	291	269	243	224	198	169	138	
15	.11	.12	.14	.15	.16	.17	.18	.19	.20	.20	.21	.21	.21	.20	.20	.19	.18	.17	.15	.14	.12	.10	.08	.05	
	146	164	181	198	213	227	242	252	261	267	271	273	272	263	262	253	241	226	204	182	153	131	101	069	
30	.06	.07	.09	.10	.11	.12	.13	.14	.15	.15	.16	.16	.16	.16	.15	.14	.13	.12	.10	.08	.05	.03	.00		
	080	098	116	133	149	163	179	189	198	205	203	210	210	206	199	190	177	161	138	115	951	063	033	001	
45	.01	.03	.04	.05	.06	.08	.09	.10	.10	.11	.11	.11	.11	.11	.10	.10	.09	.07	.06	.04	.02	.00	.00		
	014	033	052	069	086	101	116	127	136	143	147	148	147	143	136	126	113	097	074	051	025	000	000		

MAY-AUG 38 N TABLE B-1 SOLAR PARAMETERS $\cos Z = 1$
 $\times 10^6$ (W/m²*2.) \rightarrow SIGNIFIES $\cos Z = 1$.
 ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					JUL					AUG				
	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25
1900	.00	.00	.00	.01	.02	.03	.04	.05	.06	.07	.07	.06	.05	.04	.03	.01	.02	.03	.00	.00
000	000	000	000	007	023	039	055	066	075	082	086	087	085	081	074	064	050	033	009	003
15	.00	.00	.00	.00	.00	.00	.00	.01	.02	.02	.02	.02	.02	.01	.00	.00	.00	.00	.00	.00
000	000	000	000	000	000	000	000	006	015	021	026	027	025	021	013	002	000	000	000	000
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

MAY-AUG 38 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.)

*** SIGNIFIES COS Z =1
ADD 1000 TO VALUES PRECEDED BY *

MST	DATE										
	5	10	15	20	25	30	5	10	15	20	25
0500 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00										
15 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00										
30 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00										
45 .03 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00										
041 022 003 000 000 000 000 000 000 000 000 000	000 000 000 000 000 000 000 000 000 000 000 000										
0600 .08 .07 .05 .04 .03 .01 .00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00										
15 .13 .12 .11 .09 .08 .06 .05 .03 .01 .00 .00 .00	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00										
30 .18 .17 .16 .14 .13 .11 .10 .08 .06 .05 .03 .01	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00										
45 .23 .22 .21 .19 .18 .16 .15 .13 .11 .10 .08 .06	.04 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00										
315 298 280 262 242 222 201 179 156 132 107 082	052 026 001 000 000 000 000 000 000 000 000 000										
0700 .28 .27 .26 .24 .23 .21 .20 .18 .16 .14 .13 .11	.02 .07 .05 .03 .01 .00 .00 .00 .00 .00 .00 .00										
382 365 348 329 310 290 269 246 223 199 174 149	118 092 067 042 018 000 000 000 000 000 000 000										
15 .33 .32 .31 .29 .28 .26 .24 .23 .21 .19 .17 .15	.13 .11 .09 .08 .06 .04 .03 .02 .00 .00 .00 .00										
448 432 414 396 377 356 335 313 289 265 240 214	183 157 131 106 082 060 039 021 005 000 000 003										
30 .38 .37 .35 .34 .32 .31 .30 .29 .27 .24 .22 .20	.18 .16 .14 .12 .10 .09 .07 .05 .04 .03 .03 .03										
513 496 479 461 441 421 400 377 353 329 303 277	246 219 194 168 144 122 101 083 067 055 045 039										
45 .43 .41 .40 .39 .37 .35 .42 .32 .30 .28 .26 .24	.22 .20 .18 .16 .15 .13 .11 .10 .09 .08 .08 .07										
575 559 542 524 504 484 462 439 415 391 365 329	307 280 254 229 205 182 161 143 128 115 106 100										

TABLE E-1 SOLAR PARAMETERS $\cos^2 \lambda_0$ ($w/m^2 \cdot s$)
 SEP-DEC 38 N ADD 1000 TO VALUES PRECEDED BY .
 ... SIGNIFIES COS Z = 1.

MST	SEP					OCT					NOV					DEC								
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30		
0800	.47	.46	.43	.41	.40	.38	.36	.35	.33	.31	.29	.26	.24	.22	.20	.19	.17	.16	.14	.13	.12	.11		
	636	620	603	584	565	544	523	499	475	450	424	398	365	333	312	287	263	240	220	202	193	174	160	
15	.52	.50	.49	.47	.46	.44	.42	.41	.39	.37	.35	.33	.30	.28	.26	.24	.23	.21	.20	.18	.17	.16	.15	
	694	678	661	643	623	602	580	557	533	507	461	454	422	375	368	342	318	296	275	257	242	230	222	217
30	.56	.54	.53	.51	.50	.48	.46	.45	.43	.41	.39	.37	.35	.32	.30	.28	.26	.25	.23	.22	.21	.20	.19	
	750	734	717	698	679	658	635	612	587	561	535	508	475	438	421	375	371	349	328	311	261	284	276	272
45	.60	.58	.57	.55	.54	.52	.50	.48	.46	.44	.42	.40	.38	.36	.34	.32	.30	.28	.27	.26	.25	.24	.23	.23
	803	787	770	751	731	710	688	664	639	613	586	558	525	488	471	445	421	399	379	361	347	336	328	324
0900	.63	.62	.61	.59	.57	.56	.54	.52	.50	.48	.46	.44	.41	.39	.37	.35	.33	.32	.30	.28	.27	.27	.26	
	853	837	820	801	781	759	736	712	687	660	633	606	572	545	518	452	468	446	426	403	395	384	377	374
15	.67	.65	.64	.62	.61	.59	.57	.55	.53	.51	.49	.47	.44	.42	.40	.38	.36	.35	.33	.32	.31	.30	.30	
	900	884	866	847	827	805	782	757	732	705	577	650	616	585	562	536	512	490	470	453	440	429	423	420
30	.70	.69	.67	.66	.64	.62	.60	.58	.56	.54	.52	.50	.47	.45	.43	.41	.39	.38	.36	.35	.34	.33	.33	
	944	927	909	890	869	847	824	799	773	746	718	690	656	628	602	576	552	530	511	494	481	471	465	463
45	.73	.72	.70	.68	.67	.65	.63	.61	.59	.57	.54	.52	.50	.48	.46	.44	.42	.40	.39	.38	.37	.36	.36	
	984	967	949	929	908	886	862	836	810	783	755	726	692	665	638	612	588	567	548	532	519	510	504	503
1000	.76	.74	.73	.71	.69	.67	.65	.63	.61	.59	.57	.55	.52	.50	.48	.46	.44	.43	.41	.40	.39	.38	.38	
	*020	003	984	964	943	920	896	870	843	816	787	759	725	697	670	645	621	600	581	563	545	540	539	
15	.78	.77	.75	.73	.71	.70	.68	.66	.63	.61	.59	.57	.54	.52	.50	.48	.46	.45	.43	.42	.41	.40	.40	
	*052	*035	016	996	974	950	926	900	872	844	816	777	753	725	698	673	650	629	611	595	584	576	571	571
30	.80	.79	.77	.75	.73	.71	.69	.67	.65	.63	.61	.58	.56	.54	.52	.50	.48	.46	.45	.44	.43	.43	.42	
	*080	*062	*043	*023	*000	977	951	925	897	869	840	811	777	749	723	698	674	654	636	621	610	603	599	599
45	.82	.80	.79	.77	.75	.73	.71	.69	.67	.64	.62	.60	.57	.55	.53	.51	.49	.48	.47	.46	.45	.44	.44	
	*104	*066	*045	*023	998	973	946	918	889	860	831	797	769	742	718	695	675	657	643	633	626	623	624	

** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

SEP-DEC 38 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.)

MST	SEP					OCT					NOV					DEC								
	5	10	15	20	30	5	10	15	20	30	5	10	15	20	30	5	10	15	20	30				
1100	.83	.82	.80	.78	.76	.74	.72	.70	.68	.65	.63	.61	.58	.56	.54	.52	.51	.49	.48	.47	.45	.46		
	*124+105+085+064+040+016						990	962	934	905	876	847	812	784	758	733	711	691	674	661	651	644	644	
15	.84	.83	.81	.79	.77	.75	.73	.71	.69	.66	.64	.62	.60	.57	.55	.53	.51	.50	.49	.43	.47	.46	.47	
	*139+120+100+077+054+029						*002	974	946	916	887	858	823	795	769	745	723	703	687	674	665	659	657	660
30	.85	.84	.82	.80	.78	.76	.74	.71	.69	.67	.64	.62	.60	.57	.55	.54	.52	.51	.49	.43	.48	.47	.47	
	*150+139+109+087+063+037						*010	982	953	923	893	864	830	802	776	752	730	711	695	683	674	669	668	671
45	.86	.84	.82	.80	.78	.76	.74	.72	.69	.67	.65	.62	.60	.58	.56	.54	.52	.51	.50	.43	.43	.48	.48	
	*156+136+115+092+067+041						*013	984	955	925	895	866	831	804	778	755	733	715	699	683	679	675	675	678
1200	.86	.84	.82	.80	.78	.76	.74	.72	.69	.67	.64	.62	.60	.57	.55	.54	.52	.51	.50	.43	.48	.48	.48	
	*158+138+116+092+066+040						*012	983	953	923	893	863	829	802	776	753	732	714	699	683	680	677	677	681
15	.86	.84	.82	.80	.78	.76	.73	.71	.69	.66	.64	.62	.60	.57	.55	.53	.52	.50	.49	.43	.48	.48	.48	
	*155+134+112+087+061+034						*006	976	946	916	886	856	822	795	769	746	726	708	694	684	677	674	675	680
30	.85	.83	.81	.79	.77	.75	.73	.70	.68	.65	.63	.61	.58	.56	.54	.52	.51	.50	.49	.43	.47	.47	.48	
	*148+127+103+078+052+024						995	965	935	904	874	844	810	783	758	735	716	699	685	675	669	667	668	
45	.84	.82	.80	.78	.76	.74	.72	.69	.67	.64	.62	.60	.57	.55	.53	.51	.50	.49	.48	.47	.47	.46	.47	
	*136+114+091+065+038+009						980	950	919	888	858	828	794	767	743	720	701	685	672	662	657	655	657	
1300	.83	.81	.79	.77	.75	.72	.70	.68	.65	.63	.60	.58	.55	.53	.52	.50	.49	.47	.46	.45	.45	.45	.46	
	*120+098+073+047+019	990					960	930	899	868	837	807	773	747	723	701	682	666	654	645	640	639	642	649
15	.82	.80	.78	.75	.73	.71	.68	.66	.63	.61	.59	.56	.54	.52	.50	.48	.47	.46	.45	.43	.44	.44	.45	
	*100+077+052+025	996	967				936	905	874	843	812	782	742	722	692	677	659	643	632	624	619	619	623	630
30	.80	.78	.76	.73	.71	.69	.66	.64	.61	.59	.57	.54	.52	.50	.48	.46	.45	.44	.43	.43	.42	.42	.43	
	*075+051+026	998	969	939			908	877	845	814	783	753	720	694	670	649	631	617	606	593	575	567	572	580
45	.78	.76	.73	.71	.69	.66	.64	.61	.59	.56	.54	.52	.49	.47	.46	.44	.43	.42	.41	.40	.40	.40	.41	
	*046+022	995	967	938	907		876	844	812	780	750	720	687	661	633	617	600	586	575	565	567	572	580	

** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

SEP-DEC 38 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.)

MST	SEP					OCT					NOV					DEC				
	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25
1400	.75	.73	.71	.69	.66	.64	.61	.59	.56	.54	.51	.49	.47	.45	.43	.41	.40	.39	.38	.38
	*014	988	961	932	902	871	839	807	775	743	712	683	650	624	602	582	565	551	541	535
15	.72	.70	.68	.66	.63	.61	.58	.56	.53	.51	.48	.46	.41	.42	.40	.39	.37	.36	.36	.36
	977	951	923	894	863	831	799	766	734	702	671	642	603	584	552	542	526	513	504	493
30	.69	.67	.65	.63	.60	.58	.55	.53	.50	.48	.45	.43	.41	.39	.37	.36	.34	.33	.32	.34
	936	910	881	851	820	788	755	722	689	657	627	597	565	540	518	499	483	471	462	453
45	.66	.64	.62	.59	.57	.54	.52	.49	.47	.44	.42	.40	.37	.35	.34	.32	.31	.30	.29	.31
	892	865	836	805	773	740	707	674	641	609	579	549	517	493	471	453	438	426	418	413
1500	.63	.60	.58	.56	.53	.51	.48	.45	.43	.40	.38	.36	.33	.32	.30	.29	.28	.27	.26	.26
	845	817	787	756	723	690	657	623	590	558	527	498	466	442	421	403	389	377	370	366
15	.59	.57	.54	.52	.49	.47	.44	.41	.39	.36	.34	.32	.30	.28	.26	.25	.24	.23	.22	.23
	794	765	735	703	670	636	603	569	536	504	473	444	412	369	338	351	337	326	319	316
30	.55	.53	.50	.48	.45	.42	.40	.37	.35	.32	.30	.28	.26	.24	.22	.21	.20	.19	.19	.20
	741	711	680	648	614	580	546	512	479	446	416	387	356	323	312	295	282	272	265	263
45	.51	.48	.46	.43	.41	.38	.36	.33	.30	.28	.26	.24	.21	.20	.18	.17	.16	.15	.15	.17
	684	654	622	589	555	521	486	452	419	387	356	328	297	274	254	238	225	215	209	207
1600	.46	.44	.42	.39	.36	.34	.31	.28	.26	.24	.21	.19	.17	.15	.14	.13	.12	.11	.11	.13
	625	595	562	529	494	460	425	390	357	325	294	266	235	213	194	178	165	156	151	149
15	.42	.39	.37	.34	.32	.29	.26	.24	.21	.19	.17	.15	.12	.11	.09	.08	.07	.07	.08	.08
	564	533	500	466	431	396	361	326	293	261	230	202	172	150	131	116	104	995	909	899
30	.37	.35	.32	.30	.27	.24	.22	.19	.17	.14	.12	.10	.08	.06	.05	.04	.03	.03	.04	.04
	501	459	436	401	366	331	295	261	227	195	165	137	107	886	667	524	400	322	288	277
45	.32	.30	.27	.25	.22	.19	.17	.14	.12	.09	.07	.05	.03	.01	.00	.00	.00	.00	.00	.00

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

TABLE B-1 SOLAR PARAMETERS COS^Z (W/M**2.)

MST	5	10	15	20	25	30	DATE						5	10	15	20	25	30
							SEP	OCT	NOV	DEC								
1700	.28	.25	.22	.20	.17	.14	.12	.09	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00
371	337	303	267	231	195	160	125	91	59	30	02	000	000	000	000	000	000	000
15	.23	.20	.17	.15	.12	.09	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00
303	270	235	199	162	126	090	055	022	000	000	000	000	000	000	000	000	000	000
30	.17	.15	.12	.10	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
235	201	166	129	993	056	020	000	000	000	000	000	000	000	000	000	000	000	000
45	.12	.10	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
166	132	096	059	022	000	000	000	000	000	000	000	000	000	000	000	000	000	000
1800	.07	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
097	062	026	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
028	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

TABLE B-1 SOLAR PARAMETERS $\cos Z$
 $X_0 (W/\text{mm}^2)$

** SIGNIFIES $\cos Z = 1$.
ADD 1000 TO VALUES PRECEDED BY *

TEST	1	5	10	15	20	25	30	DATE						APR					
								5	10	15	20	25	30	5	10	15	20	25	30
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
0600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
0700	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.00	.00	.00	.00	.00	.01	.01	.03	.04	.06	.07	.03	.12	.057	.079	.104	.132	.161	.181
	000	000	000	000	001	009	020	035	057	079	104	132	161	181	212	236	260	315	349
30	.04	.04	.04	.05	.05	.06	.07	.07	.09	.11	.12	.14	.17	.126	.148	.173	.201	.231	.261
	063	061	062	067	075	087	103	126	148	173	201	231	261	282	316	350	394	418	451
45	.09	.09	.09	.09	.10	.11	.12	.14	.14	.15	.17	.19	.21	.193	.215	.241	.269	.299	.356
	126	125	126	132	141	153	169	193	215	241	269	299	356	384	416	451	485	517	555

JAN-APR 36 N TABLE B-1 SOLAR PARAMETERS $\cos^2(\omega_m + \alpha)$ ADD 1000 TO VALUES PRECEDED BY - SIGNIFIES $\cos^2(\omega_m + \alpha)$

PREVIOUS PAGE
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C

NST	1	5	10	15	20	25	30	DATE						APR						
								5	10	15	20	25	5	10	15	20	25	30		
0800	.13	.13	.13	.14	.14	.15	.17	.18	.20	.22	.24	.26	.30	.32	.35	.37	.40	.42	.45	.47
	187	186	189	194	204	217	234	258	281	307	335	365	417	450	484	517	550	582	619	647
15	.17	.17	.18	.18	.19	.20	.21	.23	.25	.26	.29	.31	.481	.514	.547	.580	.613	.644	.680	.703
	246	246	249	255	265	279	296	321	344	371	399	429	.32	.41	.44	.46	.49	.51	.54	.56
30	.21	.21	.22	.22	.23	.24	.25	.27	.29	.31	.33	.35	.542	.575	.608	.641	.673	.704	.739	.767
	303	303	306	313	324	338	356	381	405	432	461	491	.31	.33	.35	.37	.39	.43	.58	.60
45	.25	.25	.26	.26	.27	.28	.29	.439	464	491	520	550	.601	.634	.667	.699	.731	.761	.796	.822
	357	357	361	369	380	395	413													
0900	.29	.29	.29	.30	.31	.32	.33	.494	519	546	576	606	.35	.37	.39	.41	.43	.47	.50	.52
	408	409	413	422	434	449	468						.494	.519	.546	.576	.606	.657	.690	.722
15	.32	.32	.33	.33	.34	.35	.37	.39	.41	.43	.45	.47	.546	.572	.599	.628	.659	.710	.742	.775
	456	457	462	471	484	500	519						.595	.621	.648	.678	.709	.759	.792	.823
30	.35	.36	.36	.37	.38	.39	.40	.42	.44	.46	.48	.51	.595	.621	.648	.678	.709	.759	.792	.823
	500	502	508	518	531	548	567						.541	.561	.581	.601	.621	.640	.666	.694
45	.38	.38	.39	.40	.41	.42	.43	.46	.47	.50	.52	.54	.640	.666	.694	.724	.755	.805	.837	.868
	544	550	561	575	592	612														
1000	.41	.41	.42	.42	.44	.45	.46	.48	.50	.53	.55	.57	.61	.63	.66	.68	.70	.73	.75	.77
	578	582	589	600	614	632	653	682	708	736	766	797	.647	.679	.710	.740	.769	.796	.847	.875
15	.43	.44	.44	.45	.46	.47	.49	.51	.53	.55	.57	.60	.64	.66	.68	.71	.73	.75	.78	.80
	612	616	623	635	650	669	690	719	746	774	804	835	.685	.716	.747	.777	.805	.832	.862	.892
30	.45	.46	.46	.47	.48	.50	.51	.53	.55	.58	.60	.62	.66	.68	.71	.73	.75	.77	.80	.82
	641	645	654	666	682	701	723	752	779	808	838	869	.619	.650	.680	.709	.737	.763	.802	.832
45	.47	.47	.48	.49	.50	.52	.53	.56	.58	.60	.62	.64	.68	.71	.73	.75	.77	.79	.82	.84
	686	691	691	694	710	729	752	782	809	838	868	898	.648	.679	.709	.737	.764	.790	.822	.852

TABLE B-1 SOLAR PARAMETERS $\cos^2 x_0$ (W/M²*2.)

" SIGNIFIES $\cos^2 x^2$
ADD 1000 TO VALUES PRECEDED BY *

MST	DATE										APR									
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1100	.49	.49	.50	.51	.52	.53	.55	.57	.59	.62	.64	.66	.70	.72	.75	.77	.79	.81	.83	.85
	687	693	703	716	733	753	776	807	824	863	893	924	973	003	032	061	088	113	*140*161	180
15	.50	.50	.51	.52	.53	.55	.56	.59	.61	.63	.65	.68	.71	.74	.76	.78	.80	.82	.85	.86
	704	710	721	735	752	773	796	827	855	884	914	944	993	023	052	080	106	131	*158*173	136
30	.51	.51	.52	.53	.54	.56	.58	.60	.62	.64	.66	.69	.73	.75	.77	.79	.81	.83	.86	.87
	716	723	734	749	767	788	812	843	871	900	930	960	*009	038	067	094	120	144	*170*193	207
45	.51	.52	.53	.54	.55	.57	.58	.61	.63	.65	.67	.70	.73	.76	.78	.80	.82	.84	.86	.88
	724	731	743	759	777	799	823	854	882	912	942	972	*020	049	077	104	129	153	*178*197	214
1200	.51	.52	.53	.54	.55	.57	.59	.61	.63	.66	.68	.70	.74	.76	.78	.80	.82	.84	.86	.88
	727	735	748	764	783	805	829	861	889	918	948	979	*026	055	083	109	134	156	*181*200	217
15	.51	.52	.53	.54	.55	.57	.59	.61	.63	.66	.68	.70	.74	.76	.78	.80	.82	.84	.86	.88
	726	734	747	764	784	806	831	863	891	921	950	980	*028	056	083	109	133	156	*180*193	214
30	.51	.52	.53	.54	.55	.57	.59	.61	.63	.65	.68	.70	.74	.76	.78	.80	.82	.84	.86	.87
	720	729	743	760	780	803	828	860	889	918	948	978	*024	052	079	104	128	150	*174*192	208
45	.50	.51	.52	.53	.55	.56	.58	.61	.63	.65	.67	.69	.73	.75	.77	.79	.81	.83	.85	.87
	710	719	734	751	772	795	820	853	881	911	940	970	*016	044	070	095	118	140	*163*180	195
1300	.49	.50	.51	.52	.54	.55	.57	.60	.62	.64	.66	.69	.72	.74	.76	.78	.80	.82	.84	.85
	696	705	720	738	759	783	808	841	870	899	928	958	*003	030	056	081	104	125	*148*165	180
15	.48	.49	.50	.51	.53	.54	.56	.59	.61	.63	.65	.67	.71	.73	.75	.77	.79	.81	.82	.84
	677	686	702	721	742	766	791	824	853	882	911	940	983	013	038	062	094	105	*128*144	159
30	.46	.47	.48	.49	.51	.53	.55	.57	.59	.61	.64	.66	.69	.71	.73	.75	.77	.79	.81	.83
	653	664	680	699	720	744	770	803	832	861	890	919	963	015	039	061	081	103	*119	134
45	.44	.45	.46	.48	.49	.51	.53	.55	.57	.60	.62	.64	.67	.69	.71	.73	.75	.77	.79	.81
	626	636	653	672	694	719	745	778	806	835	864	893	937	013	038	061	083	092	*074*090	105

JAN-APR 36 N TABLE B-1 SOLAR PARAMETERS CCS Z X0 (W/W-2.) *** SIGNIFIES COS Z = 1.
ADD 100 TO VALUES PRECEDED BY *

AST	1	5	10	15	20	25	30	DATE						APR										
								5	10	15	20	25	30	5	10	15	20	25	30					
1400	.42	.43	.44	.45	.47	.49	.51	.53	.55	.57	.60	.62	.65	.67	.69	.71	.73	.74	.76	.73	.79	.80	.81	.82
	594	605	622	642	664	689	715	748	776	805	834	862	905	931	956	979	000	020	.041	.057	.072	.085	.096	.107
15	.39	.40	.42	.43	.45	.46	.48	.51	.53	.55	.57	.59	.63	.65	.66	.68	.70	.72	.73	.75	.77	.78	.79	
	559	570	587	607	630	654	681	714	742	771	799	827	870	895	920	942	963	983	.004	.023	.054	.047	.059	.070
30	.37	.38	.39	.40	.42	.44	.46	.48	.50	.52	.54	.56	.60	.62	.64	.65	.67	.69	.70	.72	.73	.74	.75	.76
	519	531	549	569	592	616	643	676	704	732	761	788	831	856	880	902	922	942	.962	.973	.953	.006	.018	.029
45	.34	.35	.36	.37	.39	.41	.43	.45	.47	.49	.51	.53	.57	.59	.60	.62	.64	.65	.67	.63	.70	.71	.72	.73
	476	488	506	527	550	575	601	634	662	690	718	745	787	812	836	857	878	897	917	933	948	961	973	984
1500	.30	.31	.33	.34	.36	.38	.39	.42	.44	.46	.48	.50	.53	.55	.57	.59	.60	.62	.64	.65	.66	.67	.68	.69
	430	442	460	481	504	529	555	588	616	644	672	699	740	765	788	809	830	848	869	885	899	912	925	936
15	.27	.28	.29	.31	.32	.34	.36	.38	.40	.42	.44	.46	.50	.51	.53	.55	.57	.58	.60	.61	.62	.63	.65	.66
	380	393	411	432	455	480	506	539	567	594	622	649	690	714	736	758	778	796	817	833	847	861	873	885
30	.23	.24	.25	.27	.29	.30	.32	.35	.37	.39	.41	.43	.46	.48	.49	.51	.53	.54	.56	.57	.58	.59	.61	.62
	328	340	359	380	403	428	454	486	514	541	568	595	635	659	682	703	723	741	.762	.773	.792	.806	.819	.831
45	.19	.20	.22	.23	.25	.26	.28	.31	.33	.35	.37	.39	.42	.43	.45	.47	.48	.50	.51	.53	.54	.55	.56	.57
	272	285	304	325	348	373	399	431	458	485	512	538	578	602	624	645	665	683	.704	.723	.735	.749	.762	.774
1600	.15	.16	.17	.19	.21	.22	.24	.27	.28	.30	.32	.34	.37	.39	.41	.42	.44	.45	.47	.48	.50	.51	.52	.53
	214	227	246	267	290	315	341	372	399	426	453	479	518	541	563	584	604	622	.643	.659	.674	.689	.702	.715
15	.11	.12	.13	.15	.16	.18	.20	.22	.24	.26	.28	.30	.33	.35	.36	.38	.39	.41	.42	.44	.45	.46	.47	.48
	154	167	186	207	230	254	280	312	338	365	391	416	455	479	500	521	541	559	.580	.595	.612	.626	.640	.654
30	.07	.07	.09	.10	.12	.14	.15	.18	.20	.21	.23	.25	.28	.30	.31	.33	.35	.36	.38	.39	.41	.43	.44	
	091	105	124	145	167	192	217	248	275	301	327	352	390	413	435	456	475	494	.515	.531	.547	.562	.576	.590
45	.02	.03	.04	.06	.07	.09	.11	.13	.15	.17	.19	.20	.23	.25	.27	.28	.30	.31	.33	.34	.35	.37	.38	.39
	027	041	059	080	103	127	152	183	209	235	260	285	323	346	368	388	408	426	.447	.464	.480	.496	.511	.525

JAN-APR 36 N TABLE B-1 SOLAR PARAMETERS COS Z =¹
 X0 (W/M=2.) ADD 1000 TO VALUES PRECEDED BY *

** SIGNIFIES COS Z =¹.

MST	DATE									
	1	5	10	15	20	25	5	10	15	20
	JAN	20	25	30	FEB	5	10	15	20	MAR
1700	.00	.00	.01	.03	.04	.06	.08	.10	.12	.14
	000	000	000	014	037	061	085	116	141	167
										217
15	.00	.00	.00	.00	.00	.01	.03	.05	.07	.09
	000	000	000	000	000	017	047	072	098	122
										147
30	.00	.00	.00	.00	.00	.00	.00	.00	.02	.04
	000	000	000	000	000	000	000	002	027	052
										076
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	004
1800	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	050
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000

JAN-APR 36 N TABLE B-1 SOLAR PARAMETERS x_0 ($w/n**2.$) $\cdot \cdot \cdot \cdot \cdot$ SIGNIFIES $COS Z = 1$
 ADD 1000 TO VALUES PRECEDED BY .

MST	MAY					JUN					JUL					AUG						
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30
0500	.00	.00	.01	.02	.03	.04	.04	.04	.03	.03	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	003	018	031	041	048	052	052	050	045	038	026	018	005	000	000	000	000	000	000	000
15	.02	.04	.05	.06	.07	.08	.08	.09	.09	.08	.07	.06	.05	.04	.03	.02	.00	.00	.00	.00	.00	.00
	029	050	068	084	096	105	112	115	115	112	108	101	092	081	069	055	040	024	004	000	000	000
30	.07	.09	.10	.11	.12	.13	.13	.14	.14	.13	.12	.12	.11	.10	.09	.08	.07	.05	.04	.03	.02	.00
	097	117	135	149	161	170	176	179	178	176	171	164	155	145	133	119	105	090	070	051	037	020
45	.12	.14	.15	.16	.17	.18	.18	.18	.18	.18	.17	.17	.16	.15	.14	.13	.12	.10	.08	.07	.05	.04
	165	185	202	216	227	235	241	243	243	240	235	228	219	209	197	184	170	156	137	121	105	088
0600	.17	.19	.20	.21	.22	.23	.23	.23	.23	.22	.21	.21	.20	.19	.18	.17	.15	.14	.13	.12	.11	.09
	234	253	269	282	293	300	306	308	307	304	299	292	284	274	262	250	236	222	204	183	173	157
15	.23	.24	.25	.26	.27	.28	.28	.28	.28	.27	.26	.26	.25	.24	.23	.22	.20	.19	.18	.17	.16	.15
	302	321	336	349	359	366	371	372	372	369	364	357	348	339	328	315	302	289	272	257	242	227
30	.28	.29	.30	.31	.32	.32	.33	.33	.33	.32	.32	.31	.30	.30	.29	.28	.27	.26	.24	.23	.22	.20
	370	388	403	415	424	431	436	437	436	433	428	421	413	403	393	381	368	355	339	322	310	295
45	.33	.34	.35	.36	.37	.37	.38	.38	.37	.37	.36	.35	.35	.34	.33	.32	.31	.29	.28	.27	.26	.25
	438	455	469	481	489	496	500	501	500	496	491	465	477	467	457	446	434	421	405	392	378	364
0700	.38	.39	.40	.41	.42	.42	.42	.42	.42	.41	.41	.40	.39	.39	.38	.37	.35	.34	.33	.32	.31	.30
	504	521	534	545	553	559	563	564	562	559	554	548	540	531	521	510	499	487	471	453	431	417
15	.42	.44	.45	.46	.46	.47	.47	.47	.47	.47	.46	.45	.44	.43	.42	.42	.40	.39	.37	.36	.35	.35
	569	585	598	609	616	622	625	626	624	621	616	610	602	593	584	573	562	551	536	524	511	498
30	.47	.48	.49	.50	.51	.51	.52	.52	.52	.51	.51	.50	.49	.49	.48	.47	.46	.45	.44	.43	.42	.40
	633	648	661	671	678	683	686	686	684	681	676	670	663	655	645	635	625	614	600	583	575	563
45	.52	.53	.54	.55	.55	.56	.56	.56	.56	.56	.55	.55	.54	.53	.53	.52	.51	.50	.49	.48	.47	.46
	635	710	721	731	738	742	745	745	743	740	735	729	722	714	705	696	686	675	662	653	638	626

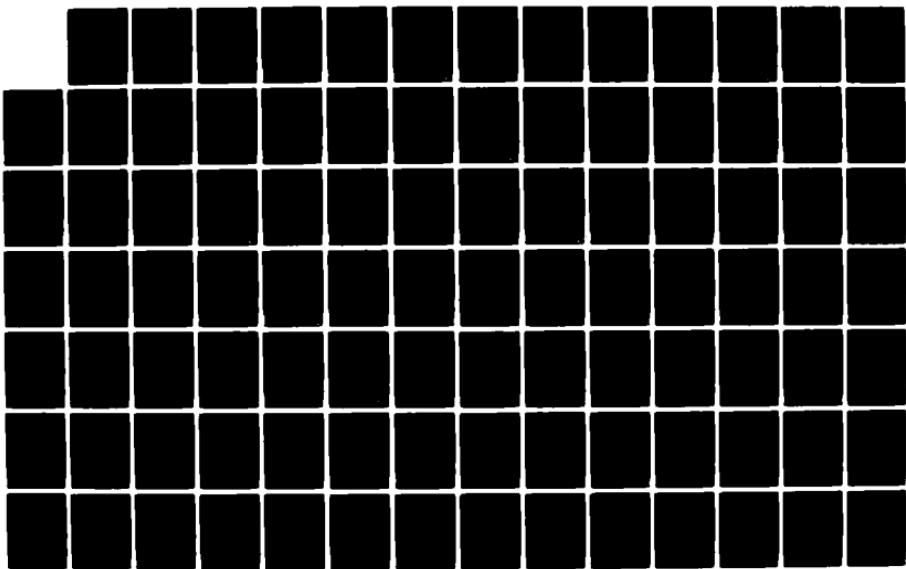
MAY-AUG 36 N TABLE B-1 SOLAR PARAMETERS CCS Z X0 (W/M**2.)

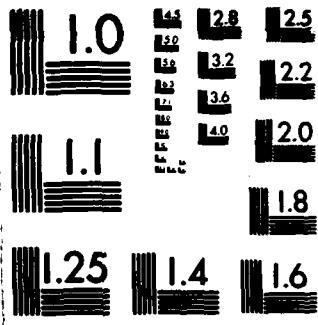
... SIGNIFIES COS Z =1.
ADD 1060 TO VALUES PRECEDED BY .

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AD-A148 096 OPERATIONAL TACTICAL DECISION AID (OTDA) FOR INFRARED
 (8-12 MICROMETERS). . (U) SYSTEMS AND APPLIED SCIENCES
 CORP VIENNA VA D B HODGES 30 SEP 83 SCIENTIFIC-8-VOL-3
UNCLASSIFIED AFGL-TR-83-0334-VOL-3 F19628-81-C-0042 F/G 4/1 NL

2/4





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

MST	MAY					JUN					JUL					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
0800	.58	.57	.58	.59	.60	.60	.60	.60	.60	.60	.59	.59	.58	.58	.57	.56	.55	.54	.53	.52	.51	.49		
	755	759	780	789	795	800	802	802	800	797	792	787	780	772	764	745	735	722	711	700	688	675	662	
15	.60	.62	.63	.63	.64	.64	.65	.65	.65	.64	.64	.65	.63	.63	.62	.61	.60	.60	.59	.58	.57	.56	.54	
	813	826	837	845	851	855	857	857	855	852	847	832	833	828	820	811	802	792	780	770	768	747	735	722
30	.65	.66	.67	.67	.68	.68	.68	.68	.68	.68	.68	.68	.67	.67	.66	.65	.65	.64	.63	.62	.61	.60	.59	.58
	868	880	891	898	904	906	910	909	907	904	900	895	885	871	874	866	857	848	836	823	815	804	792	779
45	.68	.69	.70	.71	.72	.72	.72	.72	.72	.72	.72	.71	.72	.72	.72	.70	.69	.68	.67	.65	.65	.64	.63	.62
	920	932	942	949	955	958	960	959	957	954	950	945	934	933	925	917	909	900	889	879	863	858	846	833
0900	.72	.73	.74	.75	.75	.76	.76	.76	.76	.75	.75	.76	.75	.74	.74	.73	.72	.72	.71	.73	.69	.68	.67	.66
	969	981	990	997	002	005	007	006	004	002	002	003	987	981	974	967	959	950	939	930	920	909	897	885
15	.75	.76	.77	.78	.78	.79	.79	.79	.79	.79	.78	.78	.78	.77	.77	.76	.75	.75	.74	.73	.72	.71	.69	
	015	026	035	042	047	049	051	050	049	046	042	037	032	026	020	013	005	007	987	977	967	957	945	933
30	.79	.80	.80	.81	.82	.82	.82	.82	.82	.82	.82	.82	.81	.81	.80	.80	.79	.78	.77	.77	.76	.75	.74	.73
	058	068	077	083	088	090	092	091	090	087	083	079	074	068	062	056	048	041	031	022	012	002	990	978
45	.82	.83	.83	.84	.84	.85	.85	.85	.85	.85	.85	.84	.81	.81	.83	.83	.82	.81	.81	.80	.79	.78	.77	.76
	097	107	115	121	125	128	129	129	127	127	125	117	113	107	102	095	088	081	071	063	053	043	031	019
1000	.84	.85	.86	.86	.87	.87	.88	.88	.88	.87	.87	.87	.87	.86	.86	.85	.84	.84	.83	.82	.81	.80	.79	
	132	142	150	155	159	162	163	163	161	159	156	152	163	137	131	125	118	108	103	99	080	069	056	
15	.87	.87	.88	.89	.89	.90	.90	.90	.90	.90	.90	.90	.89	.89	.88	.87	.87	.86	.85	.84	.83	.82	.81	
	164	173	180	186	190	192	193	193	192	190	187	183	179	175	170	164	158	151	142	133	124	114	102	089
30	.89	.89	.90	.91	.91	.92	.92	.92	.92	.92	.91	.91	.91	.90	.90	.89	.89	.89	171	163	153	143	131	119
	191	200	207	212	216	218	220	220	218	217	214	211	207	203	198	193	187	180	171	163	153	143	131	119
45	.90	.91	.92	.93	.93	.93	.93	.93	.94	.94	.93	.93	.93	.93	.92	.92	.91	.91	.90	.89	.88	.87	.86	.85
	214	223	230	235	238	241	242	242	241	240	237	234	242	242	241	240	237	234	231	227	223	217	212	205

MAY-AUG 36 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2) ADD 1000 TO VALUES PRECEDED BY *

** SIGNIFIES COS Z = 1.

NST	MAY					JUN					DATE					JUL					AUG				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1100	.92	.93	.94	.94	.95		.95	.95	.95	.95	.95		.95	.94	.94	.93	.93	.92		.92	.91	.90	.89	.88	.87
	*233*241*248*253*257*259		*261*261*260*259*257*254				*251*247*243*238*233*226						*218*209*200*189*177*164												
15	.93	.94	.94	.95	.95		.96	.96	.96	.96	.96		.96	.95	.95	.94	.94		.93	.92	.91	.90	.89	.88	
	*248*256*262*267*271*273		*275*275*275*274*272*270				*267*263*259*255*249*243						*235*225*217*206*194*190												
30	.93	.94	.95	.96	.96		.97	.97	.97	.97	.97		.97	.96	.96	.95	.95		.94	.93	.92	.91	.90	.89	
	*258*268*272*277*281*283		*285*285*284*283*281				*279*275*272*267*262*256						*247*231*229*218*206*192												
45	.94	.95	.95	.96	.96		.97	.97	.97	.97	.97		.97	.97	.97	.96	.95		.94	.94	.93	.92	.91	.89	
	*263*271*277*282*286*289		*291*292*292*291*290*288				*286*283*280*275*270*264						*256*247*258*226*213*199												
1200	.94	.95	.95	.96	.97		.97	.97	.98	.94	.98		.97	.97	.97	.96	.96		.95	.94	.93	.92	.91	.89	
	*265*272*278*283*287*290		*292*293*293*294*293*291				*280*287*284*279*274*268						*260*251*241*230*216*202												
15	.94	.95	.95	.96	.96		.97	.97	.98	.98	.97		.97	.97	.97	.96	.95		.95	.94	.93	.92	.91	.89	
	*261*269*275*280*284*287		*290*291*292*292*291*290				*280*286*283*279*274*268						*259*251*240*228*215*199												
30	.93	.94	.95	.95	.96		.97	.97	.97	.97	.97		.97	.97	.97	.96	.95		.94	.93	.93	.91	.90	.89	
	*253*261*267*273*277*280		*283*286*286*286*286*285				*283*281*278*274*270*264						*255*245*235*223*209*193												
45	.92	.93	.94	.94	.95		.96	.96	.96	.96	.96		.96	.96	.96	.95	.94		.94	.93	.92	.91	.90	.89	
	*241*249*255*261*265*269		*272*274*275*276*276*275				*274*272*269*266*261*255						*245*235*225*213*198*182												
1300	.91	.92	.93	.93	.94		.95	.95	.95	.95	.95		.95	.95	.95	.94	.93		.93	.92	.91	.90	.88	.87	
	*225*232*239*245*249*253		*257*259*260*261*262*262				*261*259*256*252*247*241						*232*222*211*198*183*186												
15	.89	.90	.91	.92	.92		.93	.93	.94	.94	.94		.94	.94	.94	.93	.92		.91	.90	.87	.86	.85	.85	
	*204*212*218*224*229*233		*237*240*242*243*244*24				*243*2*1*239*235*230*224						*214*204*192*179*163*146												
30	.88	.89	.89	.90	.90		.91	.92	.92	.92	.92		.92	.92	.92	.91	.91		.90	.89	.88	.86	.85	.83	
	*179*187*194*200*205*209		*214*217*219*221*222*222				*221*220*217*214*209*202						*192*182*170*155*139*121												
45	.85	.86	.87	.88	.89		.89	.90	.90	.90	.90		.90	.90	.90	.89	.89		.88	.87	.86	.84	.83	.81	
	*150*158*165*171*177*182		*187*190*193*195*196*196				*196*195*192*188*183*176						*166*155*143*128*111*092												

TABLE B-1 SOLAR PARAMETERS COS Z =¹
X₀ (W/Ni*2.) ADD 1000 TO VALUES PRECEDED BY
MAY-AUG 36 N SIGNIFIES COS Z =¹.

MST	MAY					JUN					DATE					AUG						
	5	10	15	20	30	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30
1400	.83	.84	.85	.85	.86	.87	.87	.88	.88	.88	.83	.88	.88	.87	.87	.86	.85	.84	.83	.82	.80	.79
	*116*125*132*139*145*150					*155*159*162*165*166*167					*167*165*163*159*154*147						*136*125*112*096*079*059					
15	.80	.81	.82	.83	.83	.84	.84	.85	.85	.86	.86	.86	.85	.85	.84	.84	.83	.82	.81	.79	.78	.76
	*079*088*096*103*109*115					*121*125*128*131*133*134					*133*132*130*126*120*113						*102*093*077*061*043*022					
30	.77	.78	.79	.80	.80	.81	.82	.82	.83	.83	.83	.83	.82	.82	.81	.81	.80	.79	.78	.76	.75	.73
	*039*048*056*063*070*076					*082*087*091*094*095*097					*097*096*093*099*083*076						*064*052*033*021*003 982					
45	.74	.75	.76	.76	.77	.78	.79	.79	.80	.80	.80	.80	.80	.79	.79	.78	.77	.75	.75	.73	.72	.70
	994*004*012*020*027*034					*041*046*050*053*055*057					*057*056*053*049*043*035						*023*010 935 978 959 937					
1500	.70	.71	.72	.73	.74	.75	.75	.76	.76	.77	.77	.76	.76	.76	.75	.75	.74	.72	.71	.70	.68	.66
	947 956 965 974 981 988					996*001*006*009*012*013					*014*012*010*005 999 991						978 965 950 932 912 889					
15	.67	.68	.68	.69	.70	.71	.71	.72	.72	.73	.73	.73	.73	.72	.72	.71	.70	.69	.67	.66	.64	.62
	898 906 916 924 933 940					948 954 959 963 965 967					967 966 963 959 952 943						930 917 901 882 861 838					
30	.63	.64	.64	.65	.66	.67	.68	.68	.69	.69	.69	.69	.69	.69	.68	.67	.66	.65	.64	.62	.60	.58
	842 853 863 872 881 889					897 904 909 913 916 918					916 917 914 909 902 893						879 865 849 829 808 784					
45	.58	.59	.60	.61	.62	.63	.64	.64	.65	.65	.65	.65	.65	.65	.64	.63	.62	.61	.59	.58	.56	.54
	786 797 808 818 827 835					844 851 856 861 864 866					866 865 862 857 850 840						826 811 794 774 752 727					
1600	.54	.55	.56	.57	.58	.59	.59	.60	.60	.61	.61	.61	.61	.60	.59	.59	.58	.57	.55	.54	.52	.50
	727 739 750 760 770 779					789 796 802 806 810 812					812 811 807 802 795 785						769 754 735 716 693 668					
15	.50	.51	.52	.53	.53	.54	.55	.56	.56	.57	.57	.57	.57	.56	.56	.55	.53	.52	.51	.49	.47	.45
	666 679 690 701 711 721					731 739 745 750 753 755					756 754 751 745 737 727						711 695 676 655 632 606					
30	.45	.46	.47	.48	.49	.50	.51	.51	.52	.52	.53	.53	.53	.52	.52	.51	.50	.49	.48	.46	.44	.42
	604 616 629 640 651 661					672 679 686 691 695 697					697 696 692 686 678 667						650 634 615 593 569 542					
45	.40	.41	.42	.43	.44	.45	.46	.47	.47	.48	.48	.48	.48	.48	.47	.47	.46	.44	.43	.41	.40	.35
	539 553 565 577 589 599					611 619 626 631 635 637					637 636 632 625 617 605						588 571 551 529 504 476					

MAY-AUG 36 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/MM*2.)

*** SIGNIFIES COS Z *1.
ADD 1000 TO VALUES PRECEDED BY *

NST	MAY					JUN					DATE					AUG							
	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1700	.35	.37	.38	.39	.40	.41	.42	.43	.43	.44	.44	.44	.43	.43	.43	.42	.41	.39	.38	.36	.35	.33	.30
473	487	501	513	525	536	548	557	564	570	574	576	576	574	570	563	554	542	524	506	486	463	437	409
15	.30	.31	.33	.34	.35	.36	.37	.37	.38	.38	.39	.39	.39	.38	.38	.37	.36	.35	.33	.31	.30	.28	.25
406	421	435	448	461	472	485	494	501	507	511	513	513	511	507	500	490	478	459	441	420	396	369	341
30	.25	.26	.28	.29	.30	.31	.32	.32	.33	.34	.34	.34	.34	.34	.33	.32	.31	.30	.28	.26	.25	.22	.20
339	354	369	382	395	406	420	430	438	444	448	450	450	448	443	435	425	412	393	374	352	328	301	272
45	.20	.21	.23	.24	.25	.26	.27	.28	.28	.29	.29	.29	.29	.29	.28	.27	.26	.25	.23	.21	.19	.17	.15
270	286	302	316	330	342	356	365	373	380	384	386	386	383	378	370	360	346	326	307	284	259	232	202
1800	.15	.16	.18	.19	.20	.21	.22	.23	.23	.24	.24	.24	.24	.24	.23	.22	.21	.20	.19	.16	.14	.12	.10
202	218	234	249	264	277	291	301	309	315	320	322	321	318	313	305	294	280	259	239	216	190	162	132
15	.10	.11	.13	.14	.15	.16	.17	.18	.18	.19	.19	.19	.19	.19	.19	.18	.17	.16	.14	.13	.11	.09	.07
133	151	167	183	198	211	226	236	244	251	255	257	257	254	248	239	228	213	192	171	147	121	092	061
30	.05	.06	.08	.09	.10	.11	.12	.13	.14	.14	.15	.15	.14	.14	.13	.12	.11	.09	.05	.06	.04	.02	.00
665	683	100	117	132	146	161	172	180	187	191	193	192	189	183	174	162	147	125	103	079	052	023	000
45	.00	.01	.03	.04	.05	.06	.07	.08	.09	.09	.10	.10	.10	.09	.09	.08	.07	.06	.04	.03	.01	.00	.00
666	617	634	651	667	682	697	708	117	123	127	129	128	125	118	109	96	81	658	635	611	586	560	500
1900	.00	.00	.00	.00	.00	.01	.03	.03	.04	.05	.05	.05	.05	.04	.03	.02	.01	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

MAY-AUG 36 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.) *** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

MST	5	10	15	20	25	30	DATE						DEC					
							SEP	5	10	15	20	25	30	5	10	15	20	25
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	034	017	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
0600	.08	.07	.05	.04	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	105	088	071	053	035	016	000	000	000	000	000	000	000	000	000	000	000	000
15	.13	.12	.11	.09	.08	.07	.05	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00
	176	159	143	125	107	088	069	048	027	005	000	000	000	000	000	000	000	000
30	.18	.17	.16	.15	.13	.12	.10	.09	.07	.06	.04	.02	.00	.00	.00	.00	.00	.00
	246	230	214	196	179	160	140	120	098	076	053	029	000	000	000	000	000	000
45	.23	.22	.21	.20	.18	.17	.15	.14	.12	.11	.09	.07	.05	.03	.02	.00	.00	.00
	316	300	284	267	249	231	211	190	169	146	123	099	070	045	021	000	000	000
0700	.29	.27	.26	.25	.23	.22	.21	.19	.17	.16	.14	.12	.10	.09	.06	.05	.03	.01
	385	370	354	337	319	300	280	260	238	215	192	167	136	113	068	064	041	019
15	.34	.32	.31	.30	.28	.27	.25	.24	.22	.20	.19	.17	.15	.13	.11	.09	.08	.06
	453	438	422	405	387	368	349	328	306	283	259	234	204	179	154	130	106	084
30	.39	.37	.36	.35	.33	.32	.30	.29	.27	.25	.23	.22	.19	.17	.16	.14	.12	.11
	519	504	488	471	454	435	415	394	371	348	324	299	263	243	218	194	170	148
45	.43	.42	.41	.39	.38	.37	.35	.33	.32	.30	.28	.26	.24	.22	.20	.18	.17	.15
	583	568	553	536	518	499	479	458	435	412	387	362	331	305	280	256	232	210

TABLE B-1 SOLAR PARAMETERS CCS Z X0 (W/M*2.)

*** SIGNIFIES COS Z = 1.
ADD 100 TO VALUES PRECEDED BY *

PREVIOUS PAGE
IS BLANK

C

MST	SEP					OCT					NOV					DEC									
	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30			
0800	.48	.47	.45	.44	.43	.41	.40	.38	.36	.34	.32	.30	.28	.26	.24	.23	.21	.19	.18	.15	.14	.13			
	646	631	615	598	581	561	541	519	497	473	448	423	392	356	315	291	269	249	231	216	204	194	189		
13	.52	.51	.50	.48	.47	.45	.44	.42	.40	.38	.37	.35	449	423	397	372	349	326	306	289	274	262	253	247	
	705	691	675	658	640	621	600	579	556	531	506	491	454	434	412	390	368	347	326	305	284	263	242		
30	.57	.55	.54	.53	.51	.50	.56	657	635	611	587	562	536	504	479	452	427	403	381	361	343	329	317	309	304
	763	748	732	716	697	678	710	688	664	639	614	588	556	526	503	478	454	432	413	395	381	370	362	358	
45	.61	.59	.58	.57	.55	.54	.52	.50	.48	.46	.44	.42	689	665	640	614	587	562	536	515	494	473	452	431	
	817	803	787	770	751	732	761	736	714	689	653	636	604	577	551	526	503	481	461	441	430	419	412	408	
0900	.64	.63	.62	.60	.59	.57	.56	.54	.52	.50	.49	.46	607	584	560	534	510	486	463	441	420	400	380	360	
	869	854	838	821	802	782	807	784	760	734	708	681	649	622	596	571	547	526	506	490	476	466	459	456	
15	.68	.67	.65	.64	.62	.61	.59	.57	.55	.53	.51	.49	620	607	584	561	538	515	492	470	448	426	404	382	
	917	902	886	868	849	829	850	827	802	776	750	723	690	663	637	612	589	567	548	532	519	509	503	500	
30	.71	.70	.69	.67	.66	.64	.62	.60	.58	.56	.54	.52	651	631	611	589	567	545	524	504	484	464	444	424	
	961	946	930	912	893	872	889	865	840	814	787	760	727	700	674	649	626	605	586	570	558	548	543	541	
45	.74	.73	.72	.70	.68	.67	.65	.63	.61	.59	.57	.55	689	665	640	614	587	562	536	515	494	473	452	431	
	902	887	871	852	833	812	849	825	800	774	749	723	676	653	628	603	578	553	533	513	493	473	452		
1000	.77	.76	.74	.73	.71	.69	.67	.65	.63	.61	.59	.57	924	900	874	848	821	793	760	733	707	683	660	639	
	*039+024+007	989	969	947	917	895	873	851	829	807	785	763	726	703	678	656	633	611	589	567	545	523	501	479	
15	.80	.78	.77	.75	.73	.72	.70	.68	.66	.64	.61	.59	955	930	904	878	850	823	781	762	736	712	689	668	647
	*072+057+039+021+000	978	956	930	903	875	847	921	897	871	845	819	787	761	737	714	694	651	630	609	588	567	546	525	
30	.82	.80	.79	.77	.75	.74	.72	.70	.67	.65	.63	.61	814	787	761	737	714	694	677	662	651	644	640	640	
	*101+085+068+048+027+005	905	881	856	830	803	775	747	721	695	667	639	604	578	550	522	494	464	434	404	374	344	314		
45	.84	.82	.81	.79	.77	.75	.73	.71	.69	.67	.65	.62	834	808	782	757	735	715	698	685	674	667	664	665	

SEP-DEC 36 N TABLE B-1 SOLAR PARAMETERS COS Z = 1.
X0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY *

** SIGNIFIES COS Z = 1.

MST	SEP					OCT					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
1100 .85 .84 .82 .80 .78 .77 *146*129*111*090*069*045	.74	.72	.70	.68	.66	.64	.61	.59	.57	.55	.54	.52	.51	.50	.49	.49	.48	.48		
15 .86 .85 .83 .81 .79 .77 *162*144*125*105*082*058	.75	.73	.71	.69	.67	.64	.62	.60	.58	.56	.54	.53	.52	.51	.50	.49	.49	.50		
30 .87 .85 .84 .82 .80 .78 *173*155*136*114*091*067	.76	.74	.72	.69	.67	.65	.62	.60	.58	.57	.55	.54	.52	.51	.51	.50	.50	.50		
45 .88 .86 .84 .82 .80 .78 *179*161*141*119*096*071	.76	.74	.72	.70	.67	.65	.62	.60	.58	.57	.55	.54	.53	.52	.51	.51	.51	.51		
1200 .88 .86 .84 .82 .80 .78 *161*162*142*119*095*070	.76	.74	.72	.69	.67	.65	.62	.60	.58	.57	.55	.54	.53	.52	.51	.51	.51	.51		
15 .87 .86 .84 .82 .80 .78 *179*159*138*115*090*064	.76	.73	.71	.69	.67	.64	.62	.60	.58	.56	.55	.53	.52	.51	.51	.51	.51	.51		
30 .87 .85 .83 .81 .79 .77 *171*151*129*106*080*054	.75	.73	.70	.68	.66	.63	.61	.59	.57	.55	.54	.53	.52	.51	.50	.50	.50	.51		
45 .86 .84 .82 .80 .78 .76 *159*139*116*092*066*039	.74	.71	.69	.67	.64	.62	.60	.58	.56	.54	.53	.52	.51	.50	.49	.49	.50	.50		
1300 .85 .83 .81 .79 .77 .75 *143*121*098*073*047*019	.72	.70	.68	.65	.63	.61	.59	.56	.54	.53	.51	.50	.49	.49	.48	.48	.48	.49		
15 .83 .81 .79 .77 .75 .73 *122*100*076*050*023 995	.70	.68	.66	.63	.61	.59	.56	.54	.53	.51	.50	.49	.48	.47	.47	.47	.47	.48		
30 .81 .79 .77 .75 .73 .71 *096*074*049*023 995 967	.68	.66	.64	.61	.59	.57	.54	.52	.51	.49	.48	.47	.46	.45	.45	.45	.45	.46		
45 .79 .77 .75 .73 .71 .68 *067*044*018 991 963 934	.66	.64	.61	.59	.56	.54	.52	.50	.48	.47	.45	.44	.44	.43	.43	.43	.44	.44		

TABLE B-1 SOLAR PARAMETERS COS Z₁
XC (W/M²*2.)

*** SIGNIFIES COS Z₁
ADD 1000 TO VALUES PRECEDED BY *

NST	SEP					OCT					NOV					DEC									
	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30			
1400	.77	.75	.73	.70	.68	.66	.63	.61	.58	.56	.54	.52	.49	.47	.46	.44	.43	.42	.41	.41	.41	.42			
*033	.909	.903	.905	.927	.897	.866	.835	.804	.774	.744	.715	.683	.659	.637	.618	.602	.589	.580	.574	.572	.574	.589			
15	.74	.72	.70	.67	.65	.63	.60	.58	.55	.53	.51	.48	.46	.44	.43	.41	.40	.39	.38	.38	.38	.39			
995	.971	.944	.916	.886	.856	.825	.793	.762	.732	.702	.673	.642	.618	.596	.577	.562	.550	.541	.536	.534	.537	.543	.553		
30	.71	.69	.67	.64	.62	.59	.57	.54	.52	.50	.47	.45	.43	.41	.39	.38	.37	.36	.35	.35	.35	.36			
954	.928	.901	.872	.842	.811	.780	.748	.716	.686	.656	.628	.595	.573	.551	.533	.518	.507	.498	.494	.493	.496	.503	.513		
45	.67	.65	.63	.61	.58	.56	.53	.51	.48	.46	.44	.42	.39	.38	.36	.35	.34	.33	.32	.32	.32	.33	.33		
909	.882	.854	.825	.794	.763	.731	.699	.667	.636	.607	.578	.547	.524	.503	.486	.471	.460	.453	.449	.449	.452	.460	.470		
1500	.64	.62	.59	.57	.55	.52	.679	.646	.614	.584	.554	.526	.495	.472	.452	.435	.421	.410	.403	.400	.401	.405	.413	.424	
15	.60	.58	.55	.53	.51	.48	.646	.613	.581	.550	.528	.498	.470	.440	.417	.397	.381	.367	.358	.351	.349	.350	.354	.362	.374
30	.56	.54	.51	.49	.46	.44	.565	.532	.500	.469	.439	.412	.382	.360	.340	.324	.311	.302	.296	.294	.295	.301	.309	.321	
45	.52	.49	.47	.44	.42	.39	.504	.471	.439	.408	.378	.351	.321	.299	.260	.235	.224	.211	.17	.17	.17	.17	.18	.19	
1600	.47	.45	.42	.40	.37	.35	.32	.30	.27	.25	.23	.21	.19	.17	.16	.15	.14	.13	.13	.13	.13	.14	.15		
635	.605	.574	.541	.508	.474	.441	.407	.375	.344	.315	.288	.258	.237	.218	.203	.191	.183	.178	.177	.180	.186	.195	.208		
15	.42	.40	.38	.35	.33	.30	.27	.25	.22	.20	.18	.16	.14	.12	.11	.10	.09	.09	.08	.08	.08	.09	.10	.10	
507	.476	.444	.411	.376	.342	.375	.342	.309	.278	.249	.222	.193	.172	.154	.139	.128	.120	.116	.116	.118	.125	.134	.147		
45	.33	.30	.28	.25	.23	.20	.22	.20	.18	.15	.13	.11	.09	.08	.06	.05	.04	.04	.04	.04	.04	.05	.06		
441	.409	.376	.342	.306	.273	.239	.205	.173	.142	.113	.086	.058	.038	.021	.007	.000	.000	.000	.000	.000	.000	.000	.020		

TABLE B-1 SOLAR PARAMETERS $\cos Z_{X_0}$ (W/m**2.) SEP-DEC 36 N

*** SIGNIFIES COS Z **1.
ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					NOV					DEC				
	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25
1700	.28	.25	.23	.20	.18	.15	.12	.10	.07	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00
373	.341	.307	.273	.238	.203	.168	.135	.102	.072	.043	.017	.000	.000	.000	.000	.000	.000	.000	.000	.000
15	.23	.20	.18	.15	.12	.10	.07	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
304	.271	.237	.202	.167	.132	.097	.063	.031	.009	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
30	.17	.15	.12	.10	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
234	.201	.166	.131	.096	.060	.025	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
45	.12	.10	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
163	.130	.095	.059	.024	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
1800	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
093	.058	.023	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
15	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

SEP-DEC 36 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M²*2.) * SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

MST	DATE										DATE									
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0700	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.02	.01	.01	.02	.02	.03	.04	.05	.07	.09	.11	.13	.05	.07	.09	.11	.13	.15	.17	.19
30	.06	.06	.06	.06	.06	.07	.08	.09	.10	.12	.14	.16	.06	.08	.10	.13	.15	.17	.19	.21
45	.11	.11	.11	.11	.12	.13	.14	.15	.17	.19	.21	.23	.11	.13	.15	.17	.19	.21	.23	.25
153	151	152	157	165	177	192	214	236	261	287	316	345	111	131	151	171	191	211	231	251

JAN-APR 34 N TABLE B-1 SOLAR PARAMETERS COS Z X₀ (W/Nⁿ*2.) . . . SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

**PREVIOUS PAGE
IS BLANK**

MST	JAN										FEB										MAR										APR									
	1	5	10	15	20	25	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30				
0800	.15	.15	.16	.16	.17	.18		.20	.22	.23	.25	.28		.31	.34	.36	.38	.41	.43		.46	.44	.50	.52	.54	.55														
	216	214	216	221	230	242	258	281	303	328	355	384		434	466	498	530	562	593		628	655	681	704	724	742														
15	.20	.20	.20	.21	.22	.23		.25	.26	.28	.30	.32		.36	.41	.43	.46	.48		.51	.53	.55	.56	.58	.59															
	276	275	278	284	293	306	322	345	368	393	421	450		493	531	563	595	627	657		691	713	742	765	785	802														
30	.24	.24	.24	.25	.26	.27		.29	.31	.33	.35	.37		.40	.43	.45	.48	.50	.52		.55	.57	.59	.61	.62	.64														
	334	334	337	343	353	367	383	408	431	456	484	513		563	594	626	658	689	718		752	773	802	823	842	859														
45	.28	.28	.28	.29	.30	.31		.33	.35	.37	.39	.41		.45	.47	.50	.52	.54	.57		.59	.61	.63	.65	.66	.68														
	390	390	393	400	411	425	442	467	490	516	544	574		623	654	686	717	748	777		809	835	853	879	897	913														
0900	.31	.31	.32	.32	.33	.34	.35	.37	.39	.41	.43	.45		.43	.51	.54	.56	.58	.61		.63	.65	.67	.69	.70	.72														
	442	443	447	454	466	480	498	523	547	573	602	631		680	712	743	774	803	832		864	884	911	931	949	964														
15	.35	.35	.35	.36	.37	.38	.39	.41	.43	.45	.47	.49		.53	.55	.58	.60	.62	.64		.67	.69	.71	.72	.74	.75														
	491	492	497	505	517	532	551	577	601	627	656	685		734	765	796	827	856	884		915	933	951	980	997	*012														
30	.38	.38	.38	.39	.40	.41	.43	.45	.46	.48	.50	.53		.56	.59	.61	.64	.66	.68		.70	.72	.74	.76	.77	.78														
	537	538	544	553	565	581	600	627	651	678	706	736		785	816	846	876	905	932		963	983	1007	1026	1042	*056														
45	.41	.41	.42	.42	.43	.44	.46	.48	.50	.52	.54	.56		.60	.62	.65	.67	.69	.71		.74	.75	.77	.79	.80	.81														
	579	581	587	597	610	626	646	673	698	725	753	783		832	862	893	922	950	977		*007	*023	*050	*068	*083	*097														
1000	.44	.44	.44	.44	.45	.45	.49	.51	.53	.55	.57	.59		.63	.65	.68	.70	.72	.74		.77	.78	.80	.82	.83	.84														
	617	620	626	637	651	668	688	715	741	768	797	826		875	905	935	964	99	.017		*046	*063	*088	*105	*121	*134														
15	.46	.46	.47	.48	.49	.50	.52	.54	.55	.58	.60	.62		.66	.69	.70	.73	.75	.77		.79	.81	.83	.84	.85	.86														
	651	654	662	673	688	705	726	754	779	807	836	865		914	942	973	1001	1028	.054		*082	*103	*122	*139	*154	*166														
30	.48	.48	.49	.50	.51	.52	.54	.56	.58	.60	.62	.64		.68	.70	.73	.75	.77	.79		.81	.83	.85	.86	.87	.89														
	681	685	693	705	720	738	760	788	814	842	870	900		945	978	1007	*035	*061	*086		*113	*134	*152	*169	*183	*195														
45	.50	.50	.51	.52	.53	.54	.56	.58	.60	.62	.64	.67		.70	.73	.75	.77	.79	.81		.83	.85	.87	.88	.89	.90														
	707	711	720	733	749	767	789	818	844	872	901	930		978	1007	1036	*063	*069	*114		*140	*160	*178	*194	*207	*219														

JAN-APR 34 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.) * ** SIGNIFIES COS Z = 1.
ADD .1000 TO VALUES PRECEDED BY *

MST	DATE										DATE									
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1100	.52	.52	.53	.54	.55	.56	.58	.60	.62	.64	.66	.69	.72	.74	.77	.79	.81	.83	.85	.87
728	734	743	756	773	792	814	843	870	898	927	956	*004*033*061*088*113*137	*163*182*191*214*227*238							
15	.53	.53	.54	.55	.56	.58	.59	.61	.63	.66	.68	.70	*024*052*081*107*132*155							
745	751	761	775	792	812	835	864	891	919	948	978	*041*069*096*122*146*169								
30	.54	.54	.55	.56	.57	.59	.60	.63	.65	.67	.69	.71	*75	.77	.79	.81	.83	.85	*193*212*228*242*254*264	
758	764	775	790	807	828	851	881	908	936	965	994	*052*080*106*132*156*178								
45	.54	.55	.55	.57	.58	.59	.61	.63	.65	.68	.70	.72	*76	.78	.80	.82	.84	.86	*201*219*235*249*260*270	
766	773	784	799	818	839	862	892	920	948	977	996	*052*080*106*132*156*178								
1200	.54	.55	.56	.57	.58	.60	.62	.64	.66	.68	.70	.73	*76	.78	.80	.82	.84	.86	*88*90*91*92*93*94	
769	777	789	805	823	845	868	899	927	955	984	013	*051*086*112*137*160*182								
15	.54	.55	.56	.57	.58	.60	.62	.64	.66	.68	.70	.73	*76	.78	.80	.82	.84	.86	*205*222*237*251*262*272	
768	776	789	805	824	846	870	901	929	957	985	015	*060*087*113*137*160*181								
30	.54	.54	.55	.57	.58	.60	.62	.64	.66	.68	.70	.72	*76	.78	.80	.82	.84	.86	*203*220*235*248*259*269	
762	771	784	801	821	843	867	899	926	954	983	012	*051*083*108*132*155*175								
45	.53	.54	.55	.56	.58	.59	.61	.63	.65	.68	.70	.72	*75	.77	.79	.81	.83	.85	*87*89*91*92*93	
752	761	775	792	812	835	859	891	919	947	975	014	*046*074*099*123*144*164								
1300	.52	.53	.54	.55	.57	.58	.60	.62	.65	.67	.69	.71	*74	.76	.78	.80	.82	.84	*86*87*88*89*90*91	
737	746	761	779	799	822	847	879	906	935	963	991	*035*061*085*108*129*149								
15	.51	.51	.52	.54	.55	.57	.59	.61	.63	.65	.68	.70	*73	.75	.77	.79	.81	.82	*84*86*87*88*89*90	
717	727	742	761	781	805	830	862	889	918	945	974	*017*042*066*089*110*129								
30	.49	.50	.51	.52	.54	.55	.57	.60	.62	.64	.66	.68	*71	.73	.75	.77	.79	.80	*82*84*85*86*87*88	
693	704	719	738	759	783	808	840	868	896	924	951	*99*019*043*065*085*104								
45	.47	.48	.49	.50	.52	.54	.55	.58	.60	.62	.64	.66	*70	.71	.73	.75	.77	.78	*80*81*83*84*85*86	
665	676	692	711	733	756	782	814	842	869	897	925	*967*015*036*057*075								

JAN-APR 34 N TABLE B-1

SOLAR PARAMETERS COS Z
X0 (N/M**2.)

... SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

MST	JAN					FEB					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1400	.45	.46	.47	.48	.50	.51	.53	.56	.58	.60	.62	.64	.67	.69	.71	.73	.74	.76	.78	.80
	633	644	660	680	702	726	751	783	811	839	866	893	935	954	952	950	941	.81	.82	.83
15	.42	.43	.44	.46	.47	.49	.51	.53	.55	.57	.59	.61	.65	.67	.68	.70	.72	.73	.75	.77
	596	608	625	645	667	691	716	748	776	803	831	858	893	923	945	966	986	003	.79	.80
30	.39	.40	.41	.43	.44	.46	.48	.50	.52	.55	.57	.59	.62	.64	.65	.67	.69	.70	.72	.73
	556	568	585	605	628	652	677	709	737	764	791	818	851	862	864	875	925	944	961	980
45	.36	.37	.38	.40	.41	.43	.45	.47	.49	.51	.53	.55	.59	.60	.62	.64	.65	.67	.68	.70
	512	524	542	562	585	609	634	666	694	721	748	774	814	837	859	879	898	915	934	943
1500	.33	.34	.35	.36	.38	.40	.42	.44	.46	.48	.50	.52	.55	.57	.59	.60	.62	.63	.65	.66
	464	477	495	515	538	562	588	620	647	674	700	726	765	788	810	830	849	866	884	899
15	.29	.30	.31	.33	.35	.36	.38	.40	.42	.44	.46	.48	.51	.53	.55	.56	.58	.59	.61	.62
	414	426	444	465	488	512	538	569	596	623	649	674	713	736	757	777	796	813	831	845
30	.25	.26	.28	.29	.31	.33	.34	.37	.39	.41	.42	.44	.47	.49	.51	.52	.54	.55	.57	.59
	360	372	391	412	434	459	484	515	542	568	594	620	658	680	701	721	739	756	775	789
45	.21	.22	.24	.25	.27	.29	.30	.33	.35	.36	.38	.40	.43	.45	.46	.48	.49	.51	.52	.54
	303	316	334	355	378	402	427	458	485	511	537	561	599	621	642	662	680	697	715	730
1600	.17	.18	.19	.21	.23	.24	.26	.28	.30	.32	.34	.36	.39	.40	.42	.43	.45	.46	.48	.49
	243	256	275	296	319	343	368	399	425	450	476	500	538	559	580	599	617	634	653	664
15	.13	.14	.15	.17	.18	.20	.22	.24	.26	.28	.29	.31	.34	.36	.37	.39	.40	.42	.43	.44
	182	195	213	234	257	281	306	336	362	387	412	437	473	495	515	535	553	569	588	603
30	.08	.09	.11	.12	.14	.15	.17	.19	.21	.23	.25	.27	.29	.31	.32	.34	.35	.37	.38	.39
	118	131	150	170	193	216	241	271	297	322	347	370	407	428	448	467	495	502	521	537
45	.04	.05	.06	.07	.09	.11	.12	.15	.16	.18	.20	.22	.24	.26	.27	.29	.30	.32	.33	.34
	052	065	084	104	127	150	175	204	229	254	279	302	338	359	379	398	416	433	453	464

JAN-APR 34 N TABLE B-1 SOLAR PARAMETERS $\cos^2 \chi_{0(\text{W/M}^2 \cdot 2)}$ *** SIGNIFIES $\cos^2 \chi_1$.
 ADD 1000 TO VALUES PRECEDED BY *

MST	DATE												APR											
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25
1700	.00	.00	.01	.03	.04	.06	.08	.10	.11	.13	.15	.17	.19	.21	.22	.24	.25	.26	.28	.29	.30	.32	.33	.34
000	000	016	037	059	082	106	136	160	185	209	232	263	283	308	327	345	363	382	393	413	428	442	456	
15	.00	.00	.00	.00	.00	.01	.03	.05	.06	.08	.10	.12	.14	.16	.17	.19	.20	.21	.23	.24	.25	.26	.28	.29
000	000	000	000	000	013	036	065	090	114	137	160	195	216	236	255	273	291	311	327	342	357	372	386	
30	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	.05	.06	.09	.10	.12	.13	.15	.16	.17	.19	.20	.21	.22	.23
000	000	000	000	000	000	000	000	000	018	041	065	087	122	143	163	182	200	218	238	254	270	286	301	316
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	.05	.06	.08	.09	.11	.12	.13	.15	.16	.17	.18	
000	000	000	000	000	000	000	000	000	000	000	014	048	069	098	107	126	144	164	181	198	214	230	246	
1800	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.02	.04	.05	.07	.08	.09	.11	.12	.13
000	000	000	000	000	000	000	000	000	000	000	000	000	000	013	033	051	069	091	103	125	142	159	175	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	.04	.05	.06	.08	
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	017	035	052	070	087	104	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	016	034	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	

JAN-APR 34 N TABLE B-1 SOLAR PARAMETERS $\cos Z_{x0}$ ($N/M^{\circ} \cdot 2.$)

*** SIGNIFIES $\cos Z = 1$
ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					DATE					AUG						
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30
0500	.00	.00	.00	.01	.02	.02	.02	.02	.02	.01	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
0500	.00	.00	.00	.01	.02	.02	.02	.02	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
15	.01	.03	.04	.05	.06	.07	.07	.07	.07	.06	.05	.05	.04	.03	.02	.01	.00	.00	.00	.00	.00	
15	.014	.034	.052	.066	.078	.086	.093	.095	.095	.081	.072	.061	.049	.036	.022	.006	.000	.000	.000	.000	.000	
30	.06	.08	.09	.10	.11	.12	.12	.12	.12	.11	.10	.10	.09	.08	.07	.06	.04	.03	.02	.01	.00	
30	.083	.103	.120	.134	.145	.153	.159	.161	.160	.158	.153	.146	.137	.127	.115	.102	.088	.073	.055	.034	.024	.008
45	.11	.13	.14	.15	.16	.17	.17	.17	.17	.16	.15	.15	.14	.13	.12	.11	.09	.08	.07	.06	.05	
45	.153	.172	.188	.202	.212	.220	.225	.227	.226	.223	.218	.211	.203	.192	.181	.169	.155	.141	.124	.103	.093	.078
0600	.17	.18	.19	.20	.21	.22	.22	.22	.22	.21	.20	.20	.19	.18	.17	.16	.15	.13	.12	.11	.10	
0600	.224	.242	.257	.270	.280	.287	.292	.293	.289	.284	.277	.269	.259	.248	.236	.223	.209	.192	.173	.153	.149	
15	.22	.23	.24	.25	.26	.27	.27	.27	.27	.26	.25	.25	.24	.23	.22	.21	.20	.19	.18	.16	.15	
15	.294	.311	.326	.338	.347	.354	.358	.359	.355	.350	.343	.335	.325	.315	.303	.291	.278	.261	.243	.234	.219	
30	.27	.28	.29	.30	.31	.32	.32	.32	.32	.31	.30	.30	.29	.28	.27	.26	.25	.24	.23	.22	.21	
30	.363	.380	.394	.406	.414	.421	.425	.425	.424	.421	.416	.409	.401	.392	.381	.370	.358	.346	.330	.317	.304	
45	.32	.33	.35	.35	.36	.37	.37	.37	.36	.36	.35	.35	.34	.33	.32	.31	.30	.29	.28	.27	.26	
45	.433	.449	.462	.473	.481	.487	.490	.491	.489	.486	.481	.474	.466	.457	.447	.437	.425	.413	.398	.385	.373	.360
0700	.37	.38	.40	.40	.41	.41	.42	.42	.42	.41	.40	.39	.39	.38	.37	.36	.35	.34	.33	.32	.31	
0700	.501	.516	.529	.539	.547	.552	.555	.555	.554	.550	.539	.531	.522	.513	.502	.492	.480	.466	.454	.442	.43	
15	.42	.43	.44	.44	.45	.46	.47	.47	.47	.46	.45	.44	.44	.43	.42	.41	.40	.39	.38	.37	.36	
15	.567	.582	.595	.604	.611	.616	.619	.619	.617	.613	.608	.602	.595	.585	.577	.567	.546	.533	.521	.509	.497	
30	.47	.48	.49	.50	.51	.51	.51	.51	.51	.50	.50	.49	.48	.47	.46	.45	.44	.43	.42	.41	.40	
30	.633	.647	.659	.668	.674	.679	.681	.681	.679	.675	.664	.657	.649	.640	.631	.621	.611	.598	.587	.575	.564	
45	.52	.53	.54	.55	.56	.56	.56	.56	.56	.55	.54	.54	.53	.52	.52	.51	.50	.49	.48	.47	.46	
45	.696	.710	.721	.729	.735	.739	.741	.741	.739	.736	.731	.725	.716	.716	.702	.693	.683	.673	.661	.651	.640	

TABLE B-1 SOLAR PARAMETERS CCS Z X0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY -

MAY-AUG 34 N

PREVIOUS PAGE IS BLANK C

*** SIGNIFIES COS² = 1.

MST	MAY					JUN					DATE					AUG									
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30			
0800	.56	.57	.58	.59	.60	.60	.60	.60	.60	.59	.55	.54	.53	.52	.51	.50	.723	.713	.703	.692	.681	.669			
	758	771	781	789	795	798	800	799	797	794	769	784	777	769	761	753	744	735							
15	.61	.62	.63	.63	.64	.64	.64	.64	.64	.63	.63	.62	.62	.61	.61	.60	.59	.58	.57	.56	.55	.54			
	817	829	839	846	852	855	856	856	854	850	846	840	834	c27	819	811	802	794	782	773	753	742	730		
30	.65	.66	.67	.67	.68	.68	.69	.69	.68	.68	.68	.67	.67	.66	.65	.65	.64	.63	.62	.62	.61	.60	.59		
	873	885	894	901	906	909	910	909	907	904	900	894	883	:82	874	867	859	850	840	837	c21	811	800	789	
45	.69	.70	.71	.71	.72	.72	.72	.72	.72	.72	.71	.71	.71	.70	.69	.69	.68	.67	.66	.65	.64	.63	.63		
	927	938	947	953	958	960	961	961	958	955	951	946	940	c34	927	920	912	904	894	885	c75	866	856	845	
0900	.73	.74	.74	.75	.75	.76	.76	.76	.76	.75	.75	.75	.74	.74	.73	.73	.72	.71	.70	.69	.68	.67	.67		
	977	988	998	996	002	006	009	*010	-009	*007	*004	*000	935	989	983	977	970	963	955	946	937	c28	919	908	897
15	.76	.77	.78	.78	.79	.79	.79	.79	.79	.79	.79	.79	.78	.78	.77	.77	.76	.76	.75	.74	.73	.72	.71	.70	
	*024	*034	*042	*048	*052	*054	*055	*054	*052	*049	*045	*041	*036	:030	c024	*017	*011	*003	994	985	c77	968	958	947	
30	.79	.80	.81	.82	.82	.82	.83	.83	.82	.82	.82	.82	.81	.81	.80	.80	.79	*039	*031	c23	*014	*004	993		
	*068	*078	*085	*091	*094	*096	*097	*096	*094	*091	*088	*083	*073	-073	-068	*061	*055	*048	*81	*81	c80	*79	*78	*77	
45	.82	.83	.84	.85	.85	.85	.85	.85	.85	.85	.85	.85	.84	.84	.83	.83	.82	*081	*073	c65	*056	*048	*035		
	*108	*117	*124	*129	*133	*135	*135	*134	*133	*130	*126	*123	*118	c13	-108	*102	*096	*089							
1000	.85	.86	.87	.87	.88	.88	.88	.88	.88	.88	.88	.88	.87	.87	.86	.86	.85	.85	.84	.83	.82	.81	.80		
	*144	*153	*160	*164	*168	*169	*170	*169	*167	*165	*162	*158	*154	c49	c44	c139	c127		*119	*111	*103	*094	*084	*073	
15	.87	.88	.89	.89	.90	.90	.90	.90	.90	.90	.90	.90	.90	.89	.89	.88	.88	.87	.85	.85	.84	.83	.82		
	*176	*185	*191	*196	*199	*200	*201	*200	*199	*196	*194	*190	*186	c162	c177	c172	c167	c161	*153	*145	c37	c128	c118	c107	
30	.90	.90	.91	.92	.92	.92	.92	.92	.92	.92	.92	.92	.92	.91	.91	.91	.90	.90	*183	*176	c168	*159	*148	*137	
	*204	*212	*218	*223	*226	*227	*228	*227	*226	*224	*221	*218	*215	c211	c207	c202	c197	c191							
45	.91	.92	.93	.93	.94	.94	.94	.94	.94	.94	.94	.94	.94	.93	.93	.92	.92	.91	.90	.89	.89	.88	.87		
	*228	*236	*242	*246	*249	*250	*251	*251	*249	*248	*245	*242	*235	c236	c232	c227	c222	c217	*209	*202	c194	c185	c174	c162	

** SIGNIFIES COS Z⁻¹.
ADD 1000 TO VALUES PRECEDED BY *

MAY-AUG 34 N TABLE B-1 SOLAR PARAMETERS COS Z⁻¹

X0 (W/M⁻²)

MST	MAY					JUN					DATE					JUL					AUG				
	5	10	15	20	30	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30			
1100	.93	.94	.95	.95	.95	.96	.96	.96	.96	.95	.95	.95	.94	.94	.93	.93	.92	.91	.90	.89	.88				
	*247*255*260*265*267*269					*270*270*269*267*265*263					*260	255	253	248	244*238	*231*222	*215	*206	*196	*184					
15	.94	.95	.95	.96	.96	.97	.97	.97	.97	.97	.96	.96	.95	.95	.95	.94	.93	.92	.91	.90	.89				
	*262*269*275*279*282*284					*284*284*284*282*281*279					*270	273	269	266	261*256	*248*241	*233	*223	*212	*200					
30	.95	.95	.96	.96	.97	.97	.98	.98	.98	.97	.97	.97	.96	.96	.96	.95	.95	.94	.93	.92	.91				
	*273*280*285*289*292*294					*295*295*294*294*292*290					*283	285	282	278	274*269	*261*254	*254	*236	*225	*212					
45	.95	.96	.96	.97	.97	.98	.98	.98	.98	.98	.98	.98	.97	.97	.96	.95	.95	.94	.93	.92	.91				
	*279*285*291*295*298*300					*301*301*301*300*299*298					*296	293	290	287	282*277	*270*265	*254	*244	*232	*219					
1200	.95	.96	.96	.97	.97	.98	.98	.98	.98	.98	.98	.98	.98	.97	.96	.94	.98	.98	.97	.97	.96				
	*280*286*292*296*299*301					*303*303*303*303*302*301					*295	297	294	291	287*281	*274*263	*258	*247	*235	*222					
15	.95	.96	.96	.97	.97	.97	.98	.98	.98	.98	.98	.98	.98	.97	.96	.93	.98	.93	.92	.91	.91				
	*276*283*288*292*296*298					*300*301*301*301*300					*293	296	293	290	286*281	*274*26	*257	*246	*234	*220					
30	.94	.95	.96	.96	.97	.97	.98	.98	.98	.98	.98	.98	.97	.97	.96	.95	.95	.94	.93	.92	.90				
	*269*275*280*285*288*291					*293*294*295*295*295*294					*293	291	289	286	282*276	*269*261	*251	*240	*227	*213					
45	.93	.94	.95	.95	.96	.96	.96	.97	.97	.97	.96	.97	.97	.97	.96	.95	.95	.94	.93	.92	.91				
	*256*263*268*272*276*279					*281*283*284*285*285*284					*283	282	280	276	272*267	*259*251	*231	*230	*217	*201					
1300	.92	.93	.93	.94	.94	.95	.95	.96	.96	.96	.96	.96	.96	.95	.94	.94	.95	.95	.94	.93	.92				
	*239*246*251*256*260*263					*266*268*269*270*270*270					*270	266	260	263	259*254	*245*231	*227	*215	*201	*185					
15	.91	.91	.92	.92	.93	.93	.93	.94	.94	.95	.95	.95	.94	.94	.93	.92	.92	.91	.90	.89	.87				
	*218*224*230*235*239*243					*246*248*250*251*252*252					*252	250	248	245	241*236	*227*215	*213	*195	*181	*165					
30	.89	.89	.90	.91	.91	.92	.92	.92	.93	.93	.93	.93	.93	.92	.91	.91	.91	.90	.89	.88	.85				
	*192*199*205*210*214*218					*222*225*227*228*229*230					*222	228	226	223	219*213	*205*193	*193	*171	*156	*139					
45	.86	.87	.88	.88	.89	.89	.89	.90	.90	.91	.91	.91	.91	.90	.89	.89	.89	.88	.87	.86	.83				
	*162*169*175*181*186*190					*194*197*199*201*203*203					*203	202	200	197	193*187	*178*167	*167	*143	*128	*110					

.. SIGNIFIES COS Z²
 ADD 1000 TO VALUES PRECEDED BY .

MAY-AUG 34 N

TABLE B-1 SOLAR PARAMETERS

COS Z
 40 (W/M²/R²)

MST	MAY												JUN												JUL												AUG											
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30												
1400	.84	.85	.85	.86	.86	.87	.87	.88	.88	.89	.89	.89	*162+166+168+171+172+173	*173+175+176+170+167+163+156	.83	.89	.83	.88	.88	.87	.86	.85	.84	.83	.82	.80	*147+13+125+111+094+076	.84	.63	.82	.80	.79	.77															
15	.81	.82	.82	.83	.84	.84	.85	.85	.86	.86	.85	.86	*126+130+133+136+138+139	*139+135+137+137+133+129+122	.86	.85	.86	.86	.85	.84	.84	.83	.82	.80	.79	.77	-112+102+83+074+057+038	.84	.63	.82	.80	.79	.77															
30	.78	.79	.79	.80	.81	.81	.82	.82	.83	.83	.83	.83	*037+091+095+098+100+101	*102+101+059+096+091+084	.83	.83	.83	.83	.82	.82	.81	.80	.79	.78	.77	.76	*073+062+049+034+016+997	.81	.80	.79	.78	.77	.76															
45	.75	.75	.76	.77	.77	.78	.79	.79	.80	.80	.80	.80	*045+049+053+056+059+060	*061+050+055+054+049+042	.82	.80	.80	.80	.79	.78	.78	.78	.77	.75	.74	.72	.71	.031+020+005+990	.972	.951	.951	.951	.951	.951														
1500	.71	.72	.73	.73	.74	.75	.75	.76	.76	.76	.77	.77	*016+016+014+016	*016+016+014+016+004+997	.77	.77	.77	.76	.76	.75	.74	.73	.72	.70	.69	.67	985	.973	.953	.942	.923	.902																
15	.67	.68	.69	.69	.70	.71	.71	.72	.72	.73	.73	.73	.950+955+960+964+967+968	.969+968+966+962+956+948	.73	.73	.73	.72	.71	.71	.70	.69	.68	.67	.66	.65	.63	936	.924	.909	.891	.872	.850															
30	.63	.64	.65	.65	.66	.67	.68	.68	.69	.69	.69	.69	.898+904+909+913+916+918	.913+918+915+911+905+897	.69	.69	.69	.68	.68	.68	.66	.65	.64	.63	.61	.59	884	.871	.855	.837	.817	.794																
45	.59	.60	.60	.61	.62	.63	.63	.64	.65	.65	.65	.65	.843+850+855+859+863+865	.866+865+862+858+851+843	.65	.65	.65	.64	.63	.63	.62	.61	.60	.58	.57	.55	829	.815	.799	.780	.759	.736																
1600	.54	.55	.56	.57	.58	.58	.59	.60	.60	.61	.61	.61	.810+819+806+807+809	.810+819+806+807+809	.61	.61	.61	.60	.59	.59	.58	.57	.55	.54	.52	.50	772	.757	.740	.721	.699	.675																
15	.50	.51	.51	.52	.53	.54	.55	.55	.56	.56	.57	.57	.752+751+748+743+736+726	.752+751+748+743+736+726	.57	.57	.57	.56	.55	.55	.54	.52	.51	.49	.47	.45	712	.697	.679	.659	.636	.611																
30	.45	.46	.47	.48	.49	.49	.50	.51	.51	.52	.52	.52	.666+674+680+686+692	.693+693+688+683+675+665	.52	.52	.52	.51	.50	.50	.49	.43	.46	.44	.43	.41	650	.634	.616	.595	.572	.546																
45	.40	.41	.42	.43	.44	.45	.45	.46	.47	.47	.47	.48	.604+612+619+624+628+630	.631+630+626+621+612+602	.43	.48	.47	.47	.46	.45	.44	.43	.41	.40	.38	.36	586	.563	.550	.529	.505	.479																

TABLE B-1 SOLAR PARAMETERS $\cos Z$
 $X_0 (w/M**2.)$ *** SIGNIFIES $\cos^2 \lambda$.
ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					DATE					AUG									
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25				
1700	.35	.36	.37	.38	.39	.40	.41	.41	.42	.42	.43	.43	.43	.42	.41	.40	.39	.33	.34	.35	.33	.31			
1700	469	482	495	507	518	528	540	548	555	561	565	568	569	567	563	557	548	537	520	503	434	461	437	410	
15	.30	.31	.32	.33	.34	.35	.36	.36	.37	.38	.38	.38	.36	.38	.37	.36	.36	.34	.33	.31	.29	.27	.25	400	
15	414	427	440	452	463	475	484	491	497	501	504	504	502	498	492	483	471	454	435	416	393	367	340	400	
30	.25	.26	.27	.28	.29	.30	.31	.32	.32	.33	.33	.33	.33	.33	.32	.31	.30	.29	.23	.23	.24	.22	.20	331	
30	345	359	372	365	396	409	418	426	432	436	439	439	437	433	426	416	404	386	365	357	323	297	269	331	
45	.19	.21	.22	.23	.24	.25	.26	.27	.27	.28	.28	.28	.28	.28	.27	.26	.25	.24	.22	.21	.19	.17	.15	261	
45	276	291	304	317	330	343	352	360	366	371	373	373	371	366	359	349	336	317	293	277	253	226	197	261	
1800	.14	.15	.17	.18	.19	.20	.21	.22	.22	.23	.23	.23	.23	.23	.22	.21	.20	.19	.17	.16	.14	.12	.09	191	
1800	207	222	236	250	262	276	286	294	300	305	307	307	305	300	292	281	268	249	223	207	182	155	125	191	
15	.09	.10	.11	.13	.14	.15	.16	.17	.17	.18	.18	.18	.16	.18	.18	.17	.16	.15	.14	.12	.10	.08	.06	.04	121
15	137	153	168	182	195	209	219	228	234	239	241	241	238	233	225	214	200	180	153	137	111	083	053	121	
30	.04	.05	.06	.08	.09	.10	.11	.12	.12	.13	.13	.13	.13	.13	.13	.12	.11	.10	.08	.07	.05	.03	.01	.00	501
30	068	084	100	115	129	143	153	162	169	173	175	175	172	166	158	146	132	111	093	067	041	012	000	501	
45	.00	.00	.01	.03	.04	.05	.06	.07	.07	.08	.08	.08	.08	.08	.07	.06	.05	.03	.02	.00	.00	.00	.00	000	
45	000	000	017	033	048	062	077	088	097	103	108	110	109	105	103	091	079	064	042	021	003	000	000	000	000
1900	.00	.00	.00	.00	.00	.01	.02	.02	.03	.03	.03	.03	.03	.03	.02	.01	.00	.00	.00	.00	.00	.00	.00	000	
1900	000	000	000	000	000	013	023	032	039	044	045	045	041	035	025	013	000	000	000	000	000	000	000	000	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	000	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	000	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	000	

MAY-AUG 34 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (X/X**2.) * SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					NOV					DEC				
	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
028	012	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
0600	.08	.06	.05	.04	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100	085	069	053	036	019	001	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.13	.12	.11	.09	.08	.07	.06	.04	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
173	158	143	127	110	093	075	056	036	015	000	000	000	000	000	000	000	000	000	000	000
30	.18	.17	.16	.15	.14	.12	.11	.09	.08	.06	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00
245	231	216	200	183	166	148	129	109	088	066	044	016	000	000	000	000	000	000	000	000
45	.24	.22	.21	.20	.19	.18	.16	.15	.13	.12	.10	.08	.05	.03	.01	.00	.00	.00	.00	.00
317	302	288	272	256	239	221	202	181	160	138	115	087	064	040	017	000	000	000	000	000
0700	.29	.28	.27	.25	.24	.23	.21	.20	.18	.17	.15	.13	.11	.10	.08	.06	.05	.03	.02	.00
387	373	359	343	327	310	292	273	252	231	208	185	157	133	109	066	063	042	022	001	000
15	.34	.33	.32	.30	.29	.28	.26	.25	.23	.22	.20	.18	.16	.14	.13	.11	.09	.08	.06	.05
457	443	429	413	397	380	362	342	322	300	277	254	225	201	177	153	130	109	089	072	055
30	.39	.38	.37	.35	.34	.33	.31	.30	.28	.27	.25	.23	.21	.19	.17	.16	.14	.12	.11	.10
524	511	497	482	465	448	430	410	389	367	344	320	291	267	242	219	196	174	154	135	120
45	.44	.43	.42	.40	.39	.38	.36	.35	.33	.31	.29	.26	.24	.22	.20	.18	.17	.15	.14	.13
590	577	563	548	532	514	495	476	454	432	409	355	331	306	282	259	237	217	193	171	161

34 N SEP-DEC

TABLE B-1 SOLAR PARAMETERS

COS Z
X0 (W/m²*2.)

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

PREVIOUS PAGE
IS BLANK

MST	SEP					OCT					NOV					DEC									
	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20				
0800	.49	.47	.46	.45	.44	.42	.41	.39	.38	.36	.34	.32	.30	.28	.26	.25	.23	.21	.20	.18	.17	.16	.15		
0840	654	641	627	612	595	578	559	539	517	495	471	447	417	392	367	343	320	298	278	260	245	233	223	217	
15	.53	.52	.51	.50	.48	.47	.45	.44	.42	.40	.38	.36	.47	.35	.31	.28	.27	.25	.24	.23	.22	.21	.20	.20	
30	.57	.56	.55	.54	.53	.51	.49	.48	.46	.44	.42	.41	.39	.36	.34	.33	.31	.29	.28	.27	.26	.25	.24	.24	
45	.62	.60	.59	.58	.57	.55	.53	.52	.50	.48	.46	.44	.42	.40	.38	.36	.35	.33	.32	.30	.29	.28	.28	.28	
130	830	817	803	787	770	752	733	712	689	666	641	616	585	560	534	510	487	465	446	423	414	403	395	390	
0900	.66	.64	.63	.62	.60	.59	.57	.56	.54	.52	.50	.48	.45	.44	.42	.40	.38	.37	.35	.34	.33	.32	.32	.31	
0940	883	870	855	840	822	804	784	763	740	716	691	666	635	609	584	559	536	515	496	479	455	454	446	442	
15	.69	.68	.67	.65	.64	.62	.61	.59	.57	.55	.53	.51	.49	.47	.45	.43	.41	.40	.38	.37	.36	.35	.35	.35	
30	.73	.71	.70	.69	.67	.66	.64	.62	.60	.58	.56	.54	.52	.50	.48	.46	.44	.43	.42	.40	.39	.38	.38	.38	
45	.76	.74	.73	.72	.70	.69	.67	.65	.63	.61	.59	.57	.55	.53	.51	.49	.47	.46	.44	.43	.42	.41	.41	.41	
130	*020*006	991	975	956	937	916	893	869	845	819	793	761	735	710	686	663	642	624	603	593	586	580	578	576	
1000	.78	.77	.76	.74	.73	.71	.69	.68	.66	.64	.62	.60	.57	.55	.53	.51	.50	.48	.47	.45	.44	.44	.44	.44	
15	.81	.80	.78	.77	.75	.74	.72	.70	.68	.66	.64	.62	.795	.769	.744	.720	.697	.677	659	641	632	623	618	616	616
30	.83	.82	.80	.79	.77	.76	.74	.72	.70	.68	.66	.64	.62	.57	.55	.53	.52	.50	.49	.45	.47	.46	.46	.46	46
45	.85	.84	.82	.81	.79	.77	.75	.73	.71	.69	.67	.65	.63	.61	.59	.57	.55	.54	.52	.51	.50	.50	.50	.50	.50
130	*021*0107*091*073*053*032	*010	986	961	936	905	882	850	824	799	775	753	734	716	702	681	664	640	620	600	580	560	540	520	500
130	*033*008	983	957	930	903	871	845	820	796	775	755	739	725	705	705	705	705	705	705	705	705	705	705	705	705

SEP-DEC 34 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/HW*2.) ** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					NOV					DEC								
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30		
1100	.87	.85	.84	.82	.80	.79	.77	.75	.73	.70	.68	.66	.64	.62	.60	.58	.56	.55	.54	.53	.52	.51	.51	
	*167+152+135+116+096+074					*050+026+000	973	947	919				887	861	836	813	792	773	757	741	734	728	725	727
15	.88	.86	.85	.83	.81	.80	.78	.76	.73	.71	.69	.67	.65	.62	.61	.59	.57	.56	.55	.54	.53	.52	.53	
	*183+167+150+131+110+087					*063+038+012	985	958	931				894	873	848	825	804	786	770	753	749	743	741	743
30	.89	.87	.86	.84	.82	.80	.78	.76	.74	.72	.70	.67	.65	.63	.61	.59	.58	.56	.55	.54	.53	.53	.53	
	*195+178+160+140+119+096					*072+046+020	992	965	938				905	880	855	833	812	794	779	767	759	754	753	756
45	.89	.88	.86	.84	.82	.80	.78	.76	.74	.72	.70	.68	.65	.63	.61	.60	.58	.57	.56	.55	.54	.54	.54	
	*201+184+166+145+123+100					*075+049+022	995	967	940				907	882	858	835	815	798	783	772	764	760	760	763
1200	.89	.88	.86	.84	.82	.80	.78	.76	.74	.72	.70	.67	.65	.63	.61	.59	.58	.57	.56	.55	.54	.54	.54	
	*203+186+167+146+123+099					*073+047+020	992	964	937				905	879	855	833	814	797	783	772	765	762	762	766
15	.89	.88	.86	.84	.82	.80	.78	.76	.73	.71	.69	.67	.64	.62	.61	.59	.57	.56	.55	.54	.54	.54	.54	
	*200+182+163+141+118+093					*067+040+013	985	957	929				897	872	848	827	807	791	778	763	751	759	760	765
30	.89	.87	.85	.83	.81	.79	.77	.75	.73	.70	.68	.66	.64	.62	.60	.58	.57	.55	.55	.54	.53	.53	.54	
	*193+174+154+132+108+082					*056+029+001	973	944	917				885	860	836	815	797	761	768	755	753	751	753	759
45	.88	.86	.84	.82	.80	.78	.76	.74	.71	.69	.67	.65	.62	.60	.59	.57	.56	.54	.53	.53	.52	.52	.53	
	*181+161+140+117+093+067					*040+012	984	956	927	900			868	843	820	799	781	766	754	745	739	739	741	748
1300	.86	.85	.83	.81	.79	.77	.74	.72	.70	.68	.65	.63	.61	.59	.57	.56	.54	.53	.52	.51	.51	.51	.52	
	*164+144+122+098+073+047					*020	991	963	934	906	878		846	822	799	779	761	746	735	727	723	722	726	732
15	.85	.83	.81	.79	.77	.75	.73	.70	.68	.66	.63	.61	.59	.57	.55	.54	.52	.51	.51	.50	.50	.50	.50	
	*142+122+099+075+049+022					994	966	937	908	879	852		826	796	774	754	737	723	712	705	701	701	705	713
30	.83	.81	.79	.77	.75	.73	.70	.68	.66	.63	.61	.59	.57	.55	.53	.52	.50	.49	.49	.48	.48	.48	.49	
	*116+095+072+047+021	993				965	936	906	877	849	821		790	766	744	725	708	695	684	673	675	676	680	688
45	.81	.79	.77	.75	.72	.70	.68	.66	.63	.61	.59	.57	.54	.52	.51	.49	.48	.47	.46	.44	.46	.46	.47	
	*086+064+040+015	988	959			930	901	872	842	814	766		755	731	710	691	675	662	653	647	645	646	651	660

SEP-DEC 34 N TABLE 9-1 SOLAR PARAMETERS COS Z X0 (W/2**2.) *** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

NST	DATE										DATE											
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	
1400	.78	.76	.74	.72	.70	.67	.65	.63	.60	.58	.56	.54	.51	.50	.48	.47	.45	.44	.44	.43	.43	
	.051	.029	.004	.978	.950	.922	.892	.862	.833	.803	.775	.747	.716	.693	.672	.653	.638	.626	.617	.612	.610	
15	.75	.73	.71	.69	.67	.64	.62	.60	.57	.55	.53	.51	.48	.47	.45	.44	.43	.42	.41	.40	.41	
	.013	.989	.964	.937	.909	.880	.850	.820	.790	.760	.731	.704	.674	.650	.630	.612	.597	.585	.577	.573	.572	
30	.72	.70	.68	.66	.63	.61	.59	.56	.54	.52	.49	.47	.45	.43	.42	.40	.39	.38	.38	.38	.39	
	.970	.946	.920	.892	.863	.834	.803	.773	.743	.713	.684	.657	.627	.604	.584	.567	.552	.541	.534	.530	.530	
45	.69	.67	.64	.62	.60	.57	.55	.53	.50	.48	.46	.44	.41	.40	.38	.37	.36	.35	.34	.34	.35	
	.924	.899	.872	.844	.814	.784	.753	.723	.692	.662	.634	.607	.577	.554	.535	.518	.504	.494	.487	.484	.488	.495
1500	.65	.63	.61	.58	.56	.54	.51	.49	.46	.44	.42	.40	.38	.36	.34	.33	.32	.31	.31	.31	.32	
	.874	.848	.821	.792	.762	.731	.700	.669	.638	.608	.580	.553	.523	.501	.482	.466	.453	.443	.436	.434	.435	
15	.61	.59	.57	.54	.52	.49	.47	.45	.42	.40	.38	.36	.34	.32	.30	.29	.28	.28	.27	.27	.27	
	.821	.794	.766	.737	.706	.675	.643	.612	.581	.551	.523	.496	.467	.445	.426	.410	.398	.389	.383	.381	.382	
30	.57	.55	.52	.50	.48	.45	.43	.40	.38	.36	.33	.31	.29	.28	.26	.25	.24	.24	.23	.23	.24	
	.764	.737	.708	.678	.647	.615	.584	.552	.521	.491	.463	.436	.407	.386	.368	.352	.340	.332	.326	.325	.327	
45	.52	.50	.48	.45	.43	.41	.38	.36	.33	.31	.29	.27	.25	.23	.22	.21	.20	.19	.19	.19	.20	
	.705	.677	.648	.617	.585	.553	.521	.489	.458	.428	.400	.374	.345	.324	.306	.291	.280	.272	.267	.265	.269	.275
1600	.48	.46	.43	.41	.38	.36	.33	.31	.29	.26	.24	.22	.20	.19	.17	.16	.15	.15	.15	.15	.17	
	.643	.615	.585	.553	.521	.489	.456	.424	.393	.363	.335	.309	.281	.260	.243	.228	.217	.210	.206	.205	.209	.215
15	.43	.41	.38	.36	.33	.31	.28	.26	.24	.21	.19	.17	.215	.194	.174	.153	.146	.142	.142	.145	.152	
	.579	.550	.519	.487	.455	.422	.389	.357	.325	.296	.268	.242	.214	.194	.177	.163	.153	.146	.142	.142	.145	.175
30	.38	.36	.33	.31	.28	.26	.23	.21	.19	.16	.14	.12	.10	.09	.08	.06	.06	.05	.05	.05	.06	
	.513	.483	.452	.419	.386	.353	.320	.287	.256	.226	.198	.173	.146	.126	.109	.096	.086	.080	.077	.077	.081	.088
45	.33	.31	.28	.26	.23	.21	.18	.16	.13	.11	.09	.07	.05	.04	.03	.02	.01	.01	.01	.01	.02	
	.445	.414	.382	.349	.316	.282	.249	.217	.185	.156	.128	.103	.076	.056	.040	.027	.018	.012	.009	.010	.014	

TABLE B-1 SOLAR PARAMETERS $\cos^2 x_0 (w/m^{**2})$ *** SIGNIFIES COS $z = 1$.
ADD 1000 TO VALUES PRECEDED BY +

MST	SEP					OCT					DATE					DEC						
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	
1700	.28	.25	.23	.21	.18	.15	.13	.11	.08	.06	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	375	344	312	278	244	211	177	145	113	084	056	031	.005	.000	.000	.000	.000	.000	.003	.003	.000	.000
15	.23	.20	.18	.15	.13	.10	.08	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	304	273	240	206	172	136	104	071	040	011	000	000	.000	.000	.000	.000	.000	.000	.003	.003	.000	.000
30	.17	.15	.12	.10	.07	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	232	200	167	133	098	064	030	000	000	000	000	000	.000	.000	.000	.000	.000	.000	.003	.003	.000	.000
45	.12	.09	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	160	128	094	059	025	000	000	000	000	000	000	000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
1800	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	088	055	020	000	000	000	000	000	000	000	000	000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
15	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	015	000	000	000	000	000	000	000	000	000	000	000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	000	000	000	000	000	000	000	000	000	000	000	000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	

** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY -

TABLE B-1 SOLAR PARAMETERS COS Z
 $x_0 (w/m^2)$

MST	1	5	10	15	20	25	30	DATE						APR																	
								JAN			FEB			MAR			5			10			15			20			25		
								5	10	15	20	25		5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
0600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
0700	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
15	.03	.03	.03	.03	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	
30	.08	.08	.08	.08	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09	
45	.13	.13	.13	.13	.13	.14	.14	.14	.14	.14	.14	.14	.14	.14	.14	.14	.14	.14	.14	.14	.14	.14	.14	.14	.14	.14	.14	.14	.14	.14	

JAN-APR 32 N TABLE B-1 SOLAR PARAMETERS CCS Z YO (W/N)*2.)

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

PREVIOUS PAGE
IS BLANK

C

MST	DATE										APR														
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
0800	.17	.17	.17	.18	.18	.19	.20	.22	.23	.25	.27	.29	.32	.35	.37	.39	.42	.44	.47	.43	.51	.52	.54	.55	
0800	244	242	244	248.	256	268	282	304	325	349	375	403	450	.481	.512	.543	.574	.603	.637	.663	.87	.709	.728	.745	
15	.22	.22	.22	.22	.23	.24	.25	.26	.28	.30	.32	.34	.37	.40	.42	.44	.46	.49	.51	.53	.55	.57	.58	.60	
15	306	305	307	312	320	332	348	370	391	416	442	470	517	.548	.579	.610	.640	.669	.701	.727	.750	.771	.790	.806	
30	.26	.26	.26	.26	.27	.28	.29	.31	.32	.34	.36	.38	.42	.44	.46	.49	.51	.53	.56	.58	.60	.61	.63	.64	
30	365	365	367	373	382	395	411	433	455	480	506	535	582	.612	.643	.673	.703	.731	.763	.783	.811	.831	.849	.864	
45	.30	.30	.30	.31	.31	.32	.33	.35	.37	.39	.41	.43	.46	.48	.51	.53	.55	.58	.60	.62	.64	.65	.67	.68	
45	422	422	425	431	441	454	471	494	517	541	568	596	644	.674	.704	.734	.763	.791	.822	.846	.868	.888	.905	.920	
0900	.34	.34	.34	.34	.35	.36	.37	.39	.41	.43	.45	.47	.51	.53	.55	.57	.60	.62	.64	.65	.68	.69	.71	.72	
0900	475	476	476	479	486	497	511	528	552	575	600	627	655	702	.733	.762	.792	.820	.848	.878	.901	.923	.942	.958	.972
15	.37	.37	.38	.38	.39	.40	.41	.43	.45	.47	.49	.51	.54	.57	.59	.61	.64	.66	.68	.70	.72	.73	.75	.76	
15	526	526	531	539	550	564	582	606	630	655	682	711	758	.782	.817	.846	.874	.901	.930	.953	.974	.992*	.008*	.021	
30	.40	.41	.41	.42	.42	.44	.45	.47	.49	.50	.52	.55	.59	.60	.63	.65	.67	.69	.72	.73	.75	.77	.78	.79	
30	572	574	579	587	599	614	632	658	681	707	734	763	810	.839	.863	.897	.924	.950	.979*	.001	.021	.038*	.053*	.066	
45	.43	.44	.44	.45	.46	.47	.48	.50	.52	.54	.56	.58	.62	.64	.66	.68	.71	.73	.75	.77	.78	.80	.81	.82	
45	615	617	623	632	645	660	679	705	729	755	782	811	857	.887	.916	.944	.970	.996	.024*	.045	.064	.081*	.096*	.108	
1000	.46	.46	.47	.48	.49	.50	.51	.53	.55	.57	.59	.61	.65	.67	.69	.71	.74	.76	.78	.80	.81	.83	.84	.85	
1000	654	657	663	673	686	703	722	748	773	799	826	855	901	.930	.959	.986*	.013	.037	.065*	.085	.104	.120*	.134*	.145	
15	.49	.49	.49	.50	.51	.53	.54	.56	.58	.60	.62	.64	.66	.70	.72	.74	.76	.78	.81	.82	.84	.85	.86	.87	
15	689	692	699	710	724	741	761	788	812	839	866	895	941	.970	.986	.025	.050	.075	.101*	.121	.139	.154*	.168*	.179	
30	.51	.51	.52	.53	.54	.55	.56	.58	.60	.62	.64	.67	.70	.72	.75	.77	.79	.81	.83	.85	.86	.87	.89	.90	
30	720	724	732	743	757	775	795	823	848	874	902	930	976	.005	.032	.059	.084*	.107	.133*	.152	.169	.184*	.197	.208	
45	.53	.53	.54	.55	.56	.57	.59	.61	.63	.65	.67	.69	.72	.75	.77	.79	.81	.83	.85	.88	.89	.90	.91		
45	746	751	759	771	786	805	825	853	879	905	933	961	*007	.035	.062	.088*	.113	.136	*161*	.179	.196	.210*	.222*	.232	

** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

SOLAR PARAMETERS COS $\frac{Z}{X_0}$ ($W/m^2 * 2.$)

JAN-APR 32 N TABLE B-1

MST	DATE										DATE										
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
1100	.54	.55	.55	.56	.57	.59	.60	.63	.64	.66	.69	.71	.73	.76	.79	.81	.83	.84	.87	.83	
	768	773	783	795	811	830	851	879	905	932	960	988	*033	.061	.088	.113	.137	.159	*184	.202	
15	.56	.56	.57	.58	.59	.60	.62	.64	.66	.68	.70	.72	.75	.78	.80	.82	.84	.86	.88	.91	
	786	791	801	815	831	850	872	901	927	954	981	*010	*054	.082	.108	.133	.156	.178	*202	.217	
30	.56	.57	.58	.59	.60	.61	.63	.65	.67	.69	.71	.74	.77	.79	.81	.83	.85	.87	.89	.90	
	799	805	815	829	846	866	888	918	944	971	998	*027	*071	.098	.124	.148	*171	.192	*215	.232	
45	.57	.58	.58	.59	.61	.61	.64	.66	.68	.70	.72	.74	.78	.80	.82	.84	.86	.88	.89	.91	
	807	814	825	839	857	877	900	929	956	983	*011	*028	*082	.109	.134	.158	.181	.201	*223	.240	
1200	.57	.58	.59	.60	.61	.63	.64	.67	.69	.71	.73	.75	.78	.80	.82	.84	.86	.88	.90	.91	
	810	817	830	845	863	884	906	936	963	990	*019	*045	*082	.115	.140	.163	*185	.205	*227	.242	
15	.57	.58	.59	.60	.61	.63	.64	.67	.69	.71	.73	.75	.78	.80	.82	.84	.86	.88	.90	.91	
	809	817	829	845	864	885	908	938	965	992	*020	*047	*092	.116	.141	*164	.185	.204	*225	.240	
30	.57	.57	.58	.59	.61	.61	.64	.67	.69	.71	.73	.75	.78	.80	.82	.84	.86	.87	.89	.90	
	803	811	825	841	860	882	905	936	962	990	*017	*044	*087	.112	.136	.159	*180	.198	*219	.234	
45	.58	.58	.59	.60	.62	.64	.66	.68	.70	.72	.74	.78	.80	.81	.83	.85	.87	.88	.90	.91	
	792	801	815	832	851	873	897	928	955	982	*009	*036	*078	.103	.127	.149	*163	.188	*207	.222	
1300	.55	.56	.57	.58	.59	.61	.63	.65	.67	.69	.71	.73	.77	.79	.80	.82	.84	.85	.87	.88	
	777	786	801	818	838	860	885	915	942	969	987	*023	*065	.082	.113	.134	.154	.172	*191	.205	
15	.54	.54	.55	.57	.58	.60	.62	.64	.66	.68	.70	.72	.75	.77	.79	.81	.82	.84	.86	.87	
	757	767	782	800	820	843	867	898	925	952	979	*006	*047	.071	.093	.114	*134	.151	*170	.184	
30	.52	.53	.54	.55	.56	.58	.60	.62	.64	.66	.68	.70	.74	.75	.77	.79	.81	.82	.84	.85	
	733	743	758	777	797	820	845	876	903	930	956	983	*023	*023	.047	.069	.090	.109	.126	*144	.155
45	.50	.51	.52	.53	.55	.56	.58	.60	.62	.64	.66	.68	.72	.73	.75	.77	.78	.80	.81	.83	
	704	714	730	749	770	793	818	849	876	903	929	955	995	.019	.041	*061	*079	.096	*114	.127	

JAN-APR 32 N TABLE B-1 SOLAR PARAMETERS

COS Z X0 (W/m²•2.)

... SIGNIFIES COS Z = 1.

ADD 1000 TO VALUES PRECEDED BY .

MST	DATE																																					
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30							
1400	.47	.48	.49	.51	.52	.54	.56	.58	.60	.62	.64	.66	.68	.71	.73	.74	.76	.77	.79	.80	.81	.82	.83	.84	.86	.86	.86	.86	.86	.86								
	671	682	698	717	738	762	787	818	844	871	898	923	963	963	948	969	989	989	989	979	979	979	979	979	979	979	979	979	979	979	979							
15	.45	.46	.47	.48	.50	.51	.53	.56	.58	.60	.62	.64	.67	.68	.70	.72	.73	.75	.76	.77	.78	.79	.80	.81	.84	.853	.855	.855	.855	.855	.855							
	633	645	662	681	703	726	751	782	809	835	861	887	926	926	937	953	969	989	989	989	940	940	940	940	940	940	940	940	940	940	940	940						
30	.42	.43	.44	.45	.47	.49	.50	.53	.55	.57	.59	.61	.64	.65	.67	.69	.70	.71	.73	.74	.75	.76	.77	.78	.81	.813	.813	.813	.813	.813	.813							
	592	604	621	641	663	686	711	742	769	795	821	846	884	884	907	927	946	964	980	997	997	997	997	997	997	997	997	997	997	997	997							
45	.39	.40	.41	.42	.44	.46	.47	.50	.52	.54	.55	.57	.60	.62	.64	.65	.67	.68	.69	.71	.72	.73	.74	.74	.74	.74	.74	.74	.74	.74	.74	.74	.74					
	547	559	577	597	619	642	667	698	724	751	776	801	833	833	861	881	900	917	933	950	950	950	950	950	950	950	950	950	950	950	950	950						
1500	.35	.36	.37	.39	.40	.42	.44	.46	.48	.50	.52	.54	.57	.58	.60	.62	.63	.64	.66	.67	.68	.69	.70	.71	.71	.71	.71	.71	.71	.71	.71	.71	.71	.71				
	498	511	529	549	571	595	619	650	676	702	728	752	789	789	811	831	850	867	882	899	899	912	923	934	943	952	952	952	952	952	952	952	952	952	952	952	952	
15	.32	.32	.34	.35	.37	.39	.40	.43	.44	.46	.48	.50	.53	.55	.56	.58	.59	.60	.62	.63	.64	.65	.66	.67	.67	.67	.67	.67	.67	.67	.67	.67	.67	.67	.67			
	446	459	477	497	520	543	568	599	625	650	675	700	736	736	757	777	795	812	828	845	845	857	863	880	889	899	899	899	899	899	899	899	899	899	899	899	899	
30	.28	.29	.30	.31	.33	.35	.36	.39	.41	.42	.44	.46	.49	.50	.52	.53	.55	.56	.58	.59	.60	.61	.62	.62	.62	.62	.62	.62	.62	.62	.62	.62	.62	.62	.62			
	391	404	422	443	465	489	513	544	569	595	619	643	679	679	700	720	738	755	770	787	787	803	811	822	832	842	842	842	842	842	842	842	842	842	842	842	842	842
45	.24	.24	.26	.27	.29	.31	.32	.35	.36	.38	.40	.42	.45	.46	.48	.49	.50	.52	.53	.54	.55	.56	.57	.58	.58	.58	.58	.58	.58	.58	.58	.58	.58	.58	.58			
	333	346	364	385	407	431	455	486	511	536	560	584	620	620	640	659	677	694	709	726	726	739	751	762	773	783	783	783	783	783	783	783	783	783	783	783	783	
1600	.19	.20	.22	.23	.25	.26	.28	.30	.32	.34	.36	.37	.40	.42	.43	.44	.46	.47	.48	.50	.51	.52	.53	.53	.53	.53	.53	.53	.53	.53	.53	.53	.53	.53	.53			
	272	285	304	324	347	370	394	424	449	474	498	522	557	557	577	596	614	630	645	662	662	675	688	699	710	721	721	721	721	721	721	721	721	721	721	721	721	
15	.15	.16	.17	.19	.20	.22	.24	.26	.27	.29	.31	.33	.35	.37	.38	.40	.41	.42	.44	.44	.45	.45	.46	.47	.48	.49	.49	.49	.49	.49	.49	.49	.49	.49	.49	.49	.49	
	209	222	241	261	283	307	331	360	385	410	433	456	491	491	511	530	547	564	579	596	596	603	622	634	645	656	656	656	656	656	656	656	656	656	656	656		
30	.10	.11	.12	.14	.15	.17	.19	.21	.23	.24	.26	.28	.30	.32	.33	.35	.36	.37	.39	.40	.41	.42	.43	.44	.44	.44	.44	.44	.44	.44	.44	.44	.44	.44	.44	.44		
	144	157	175	196	218	241	265	294	318	342	366	399	423	423	443	461	479	495	510	528	528	541	554	566	578	590	590	590	590	590	590	590	590	590	590	590	590	
45	.05	.06	.08	.09	.11	.12	.14	.16	.18	.20	.21	.23	.25	.25	.27	.28	.30	.31	.32	.33	.35	.36	.37	.38	.39	.39	.39	.39	.39	.39	.39	.39	.39	.39	.39	.39		
	076	090	108	126	150	173	197	226	250	273	296	319	352	352	372	395	408	424	440	457	457	471	484	497	510	522	522	522	522	522	522	522	522	522	522	522		

JAN-APR

32 N

TABLE B-1

SOLAR PARAMETERS

CCS Z

X0 (W/M**2.)

*** SIGNIFIES COS Z = 1.

ADD 1000 TO VALUES PRECEDED BY .

NST	JAN					FEB					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1700	.01	.02	.03	.04	.06	.07	.09	.11	.13	.14	.16	.18	.20	.22	.23	.24	.26	.27	.28	.29
008	.021	.039	.059	.081	.104	.127	.155	.179	.202	.225	.247	.280	.300	.318	.335	.352	.368	.385	.393	.413
15	.00	.00	.00	.00	.01	.02	.04	.06	.08	.09	.11	.12	.15	.16	.18	.19	.20	.21	.23	.24
000	.000	.000	.000	.010	.032	.055	.083	.107	.130	.152	.174	.206	.226	.244	.261	.278	.294	.312	.323	.341
30	.00	.00	.00	.00	.00	.00	.00	.01	.02	.04	.06	.07	.09	.11	.12	.14	.15	.16	.17	.19
000	.000	.000	.000	.000	.000	.000	.000	.010	.033	.056	.078	.099	.131	.151	.169	.186	.203	.219	.238	.253
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.04	.05	.07	.08	.09	.11	.12	.13
000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.023	.056	.075	.093	.110	.127	.144	.162	.175
1800	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	.04	.05	.06	.07
000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.016	.034	.051	.068	.087	.103
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.02
000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.011	.023
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

JAN-APR 32 N TABLE B-1 SOLAR PARAMETERS COS Z ^{** SIGNIFIES COS Z = 1.}
^{** ADD 1000 TO VALUES PRECEDED BY *}
^{X0 (W/M**2.)}

MST	DATE										
	5	10	15	20	25	30	5	10	15	20	25
0500 000	.00	.00	.00	.00	.00	.00	.01	.01	.01	.00	.00
	007	009	009	007	002	030	007	009	009	002	030
15 000	.00	.01	.03	.04	.05	.05	.06	.06	.06	.05	.05
	074	076	075	072	067	061	074	076	075	072	067
30 050	.05	.07	.08	.09	.10	.10	.11	.11	.11	.10	.10
	141	143	142	139	134	127	141	143	142	138	125
45 111	.11	.12	.13	.14	.15	.15	.16	.16	.16	.15	.15
	209	210	209	207	197	204	209	210	206	201	194
0600 213	.16	.17	.18	.19	.20	.21	.21	.21	.21	.20	.20
	231	245	257	266	273	277	278	277	274	268	262
15 285	.21	.23	.24	.24	.25	.26	.26	.26	.26	.25	.25
	302	316	327	335	341	345	346	344	341	336	329
30 356	.27	.28	.29	.30	.30	.31	.31	.31	.31	.30	.30
	372	385	396	404	410	413	413	412	408	403	396
45 427	.32	.33	.34	.35	.36	.36	.36	.36	.36	.35	.35
	442	455	465	472	477	480	480	478	475	470	463
0700 497	.37	.38	.39	.40	.41	.41	.41	.41	.41	.40	.40
	511	523	532	539	544	546	546	544	541	536	529
15 565	.42	.43	.44	.45	.46	.46	.46	.46	.46	.45	.45
	579	590	599	605	609	612	611	609	605	600	594
30 632	.47	.48	.49	.50	.51	.51	.51	.51	.50	.50	.50
	645	656	664	670	673	675	675	672	669	664	658
45 697	.52	.53	.54	.54	.55	.55	.55	.55	.55	.55	.55
	709	719	727	732	736	737	736	734	730	725	719

MAY-AUG 32 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M²) ADD 1000 TO VALUES PRECEDED BY *

... SIGNIFIES COS Z = 1.

ADD 1000 TO VALUES PRECEDED BY *

NST	MAY					JUN					DATE					JUL					AUG				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0800	.56	.58	.59	.59	.60		.60	.60	.60	.59	.59		.53	.57	.57	.56	.55		.54	.54	.53	.52	.51	.50	
0800	759	771	781	788	793	795	797	796	794	790	785	779	773	766	758	750	742	733	723	714	705	695	685	675	
15	.61	.62	.63	.63	.64	.64	.64	.64	.64	.64	.63		.63	.62	.62	.61	.60	.60		.59	.53	.57	.57	.56	.55
0800	820	831	840	847	851	854	855	854	851	847	843	837	831	824	817	810	802	794	784	775	765	757	748	738	
30	.65	.66	.67	.68	.68	.68	.68	.68	.68	.68	.68		.67	.67	.66	.65	.65	.64		.63	.64	.62	.61	.60	.59
0800	878	888	897	903	907	909	910	909	906	903	893	893	887	881	874	867	859	852	842	834	826	817	808	798	
45	.69	.70	.71	.72	.72	.72	.72	.72	.72	.72	.72		.71	.71	.70	.70	.69	.68		.68	.67	.66	.65	.65	.64
0800	932	942	950	956	960	962	962	961	958	955	951	946	940	934	928	921	914	907	898	890	882	874	865	855	
0900	.73	.74	.75	.75	.76	.76	.76	.76	.76	.76	.75		.75	.74	.74	.73	.73	.72		.71	.71	.70	.69	.69	.68
0900	984	994	*001*	*006*	*010*	011	*011*	*010*	*008*	*004*	000	9:6		990	985	979	972	966	959	951	943	935	927	918	909
15	.77	.78	.78	.79	.79	.79	.80	.80	.80	.79	.79		.78	.78	.78	.77	.77	.76		.75	.75	.74	.73	.72	.71
0900	*032*	041*	048*	053*	056*	058	*058*	*056*	*054*	*051*	*047*	043		*038	*032	*027*	*021*	*015*	008	*000	993	985	978	969	959
30	.80	.81	.82	.82	.82	.83	.83	.83	.83	.82	.82		.82	.81	.81	.80	.80	.79		.79	.79	.77	.77	.76	.75
0900	*077*	085*	092*	096*	099*	101	*101*	099*	097*	094*	090*	086		*082	*077	*071*	*066*	*060*	054	*046*	040	*032	*024*	016*	006
45	.83	.84	.85	.85	.85	.86	.86	.86	.86	.85	.85		.85	.84	.84	.83	.83	.83		.82	.81	.81	.80	.79	.78
0900	*118*	126*	132*	136*	139*	140	*140*	139*	136*	134*	130*	126		*122	117	113*	107*	102*	096	*089	*082	*075	*067*	059*	049
1000	.86	.87	.87	.88	.88	.88	.88	.88	.88	.88	.88		.88	.87	.87	.86	.85		.85	.84	.83	.82	.82	.81	
1000	*155*	162*	168*	172*	175*	176	*175*	174*	172*	170*	166*	163		*153	*155	*150*	*145*	*140*	135	*128*	121	*114	*107*	098*	088
15	.88	.89	.90	.90	.90	.91	.91	.91	.91	.91	.90		.90	.90	.89	.89	.88		.87	.87	.86	.85	.85	.84	
0900	*188*	195*	200*	204*	206*	207	*207*	206*	204*	202*	199*	195		*192	183	184*	179*	175*	170	*163*	157	*150	*142*	133*	123
30	.90	.91	.92	.92	.93	.93	.93	.93	.93	.93	.92		.92	.92	.92	.91	.91	.90		.90	.89	.88	.87	.86	
0900	*216*	223*	228*	232*	234*	235	*235*	234*	232*	230*	227*	224		*221	217	214*	210*	205*	200	*194*	187	*191	*173*	164*	154
45	.92	.93	.94	.94	.94	.95	.95	.95	.95	.94	.94		.94	.94	.94	.93	.93	.92		.92	.91	.90	.89	.88	
0900	*241*	247*	252*	255*	257*	258	*258*	257*	256*	254*	252*	249		*246	*243	*239	*235*	*231*	227	*220*	214	*207	*199*	190*	80

MAY-AUG 32 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M=+2.) *** SIGNIFIES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY *

MST	DATE										
	5	10	15	20	25	30	5	10	15	20	25
1100	.94	.95	.95	.96	.96	.96	.96	.95	.95	.94	.94
	*261*267*271*275*277*278						*267*261*257*253*249				
15	.95	.96	.96	.96	.97	.97	.97	.97	.96	.96	.95
	*276*282*286*289*291*292						*281*281*278*275*271*267				
30	.96	.96	.97	.97	.98	.98	.98	.98	.98	.97	.96
	*286*292*296*300*302*303						*296*294*291*288*284*280				
45	.96	.97	.97	.98	.98	.98	.99	.99	.99	.97	.97
	*292*298*302*305*307*309						*304*302*299*296*293*289				
1200	.96	.97	.97	.98	.98	.98	.99	.99	.99	.98	.97
	*294*299*303*306*309*310						*307*305*303*300*297*293				
15	.96	.97	.97	.98	.98	.98	.99	.99	.99	.98	.97
	*296*298*300*303*305*307						*306*205*303*300*297*293				
30	.95	.96	.96	.97	.97	.98	.98	.98	.98	.97	.97
	*282*287*292*295*298*299						*301*300*293*295*292*288				
45	.94	.95	.96	.96	.96	.97	.97	.98	.98	.97	.96
	*269*275*279*283*285*287						*291*290*288*286*283*278				
1300	.93	.94	.94	.95	.95	.95	.96	.96	.96	.96	.95
	*252*257*262*266*269*271						*273*275*276*277*277				
15	.91	.92	.93	.93	.94	.94	.94	.95	.95	.94	.94
	*230*236*240*244*248*250						*253*255*257*258*258*259				
30	.89	.90	.91	.91	.92	.92	.92	.93	.93	.93	.92
	*204*209*214*219*222*225						*229*231*233*234*235*236				
45	.87	.88	.88	.89	.89	.90	.90	.91	.91	.91	.90
	*173*179*184*189*193*196						*200*203*205*207*205*205				

MAY-AUG 32 N TABLE B-1 SOLAR PARAMETERS $\cos^2 x_0$ (w/m*2.) \therefore SIGNIFIES $\cos^2 = 1$.
 AND 1000 TO VALUES PRECEDED BY .

MST	MAY										JUN										JUL										AUG									
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30				
1400	.85	.95	.86	.86	.87	.87	.88	.88	.89	.89	.89	.89	.89	.89	.89	.89	.89	.89	.88	.88	.88	.88	.88	.88	.87	.85	.85	.84	.83	.81										
	*139	*144	*150	*155	*159	*163	*167	-170	*173	*175	*177	*178	*178	*178	*177	*177	*178	*178	*178	*178	*178	*178	*178	*157	*143	*137	*124	*109	*092											
15	.82	.82	.83	.84	.84	.85	.85	.85	.86	.86	.86	.86	.86	.86	.86	.86	.86	.86	.85	.85	.85	.85	.85	.85	.84	.83	.82	.81	.80	.78										
	*099	*106	*112	*117	*122	*126	*131	*134	*137	*140	*142	*143	*142	*143	*142	*142	*143	*143	*142	*139	*135	*130	*121	*111	*100	*086	*071	*053												
30	.79	.79	.80	.81	.81	.82	.82	.82	.83	.83	.83	.83	.83	.83	.83	.83	.83	.83	.82	.82	.82	.82	.82	.81	.80	.79	.78	.77	.75											
	*057	*064	*070	*075	*081	*086	*091	*095	*098	*101	*103	*105	*105	*105	*104	*104	*104	*104	*104	*104	*104	*104	*104	*081	*071	*053	*045	*029	*010											
45	.75	.76	.76	.77	.78	.78	.79	.79	.80	.80	.80	.80	.80	.80	.80	.80	.80	.80	.79	.79	.79	.79	.79	.78	.77	.76	.75	.73	.72											
	*010	*017	*024	*030	*036	*041	*047	*051	*055	*058	*061	*063	*063	*063	*062	*062	*062	*062	*062	*062	*059	*054	*048	*038	*023	*015	*000	*983	*964											
1500	.71	.72	.73	.73	.74	.75	.75	.76	.76	.76	.77	.77	.77	.77	.77	.77	.77	.77	.76	.76	.75	.75	.75	.74	.72	.71	.70	.68												
	960	968	975	982	988	994	*000	*005	*009	*013	*015	*017	*018	*018	*016	*016	*016	*016	*016	*013	*008	*002	991	980	967	951	934	914												
15	.67	.68	.69	.70	.70	.71	.72	.72	.72	.73	.73	.73	.73	.73	.73	.73	.73	.72	.72	.72	.71	.70	.69	.67	.66	.64														
	907	915	923	930	937	943	950	955	960	964	967	969	970	969	968	968	968	968	959	952	941	923	915	899	881	860														
30	.63	.64	.65	.66	.66	.67	.68	.68	.68	.69	.69	.69	.69	.69	.69	.69	.69	.68	.68	.67	.65	.65	.63	.62	.60															
	851	860	868	875	883	889	897	903	907	912	915	917	918	918	916	916	912	907	899	888	875	861	844	825	803															
45	.59	.60	.61	.62	.63	.63	.63	.64	.64	.65	.65	.65	.65	.65	.65	.65	.65	.64	.64	.64	.63	.61	.60	.59	.57	.55														
	792	801	810	818	826	833	841	847	853	857	860	863	864	863	861	858	852	844	832	813	803	786	766	744																
1600	.54	.55	.56	.57	.57	.58	.59	.60	.60	.60	.61	.61	.61	.61	.61	.61	.60	.59	.59	.58	.57	.56	.54	.53	.51															
	731	740	749	758	766	774	783	789	795	800	804	806	807	806	804	800	794	786	773	759	743	725	704	681																
15	.50	.50	.51	.52	.53	.54	.54	.55	.56	.56	.56	.56	.57	.56	.56	.56	.55	.55	.55	.53	.52	.51	.49	.48	.46															
	667	677	687	696	705	713	723	730	736	741	744	747	748	747	745	740	734	725	711	697	681	662	640	616																
30	.45	.46	.46	.47	.48	.49	.50	.50	.51	.51	.52	.52	.52	.52	.52	.52	.51	.51	.50	.49	.43	.46	.45	.43	.41															
	601	612	622	632	642	650	660	668	674	679	683	686	687	686	683	679	672	662	648	633	616	596	574	549																
45	.40	.41	.42	.42	.43	.44	.45	.46	.46	.47	.47	.47	.47	.47	.47	.46	.46	.45	.44	.43	.41	.40	.38	.36																
	533	545	556	566	576	586	596	604	611	616	620	623	624	623	620	615	607	598	583	567	549	529	506	481																

TABLE B-1 SOLAR PARAMETERS $\cos^2 x_0$ ($W/M^2 \cdot 2.$) *** SIGNIFIES $\cos z = 1$.

ADD 1000 .3 VALUES PRECEDED BY *

MST	DATE										AUG												
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15		
1700	.35	.36	.36	.37	.38	.39	.40	.41	.42	.42	.42	.42	.42	.42	.42	.41	.40	.39	.35	.34	.33		
1700	464	476	488	499	510	520	531	539	546	552	556	559	553	568	555	550	542	531	516	503	481	460	
15	.29	.30	.31	.32	.33	.34	.35	.36	.36	.37	.37	.37	.37	.37	.36	.36	.35	.34	.32	.31	.29	.27	
15	394	407	419	431	442	453	464	473	480	486	490	493	494	493	489	483	475	464	447	431	411	389	
30	.24	.25	.26	.27	.28	.29	.30	.31	.31	.32	.32	.32	.32	.32	.31	.31	.30	.28	.27	.26	.24	.22	
30	323	336	349	362	374	385	397	406	413	420	424	427	427	426	422	416	407	395	378	361	341	318	
45	.19	.20	.21	.22	.23	.24	.25	.26	.26	.27	.27	.27	.27	.27	.27	.26	.25	.23	.22	.20	.18	.16	
45	251	266	279	292	305	316	329	338	346	352	357	360	360	358	354	347	339	326	308	293	269	246	220
1800	.13	.15	.16	.17	.18	.19	.20	.20	.21	.22	.22	.22	.22	.22	.21	.20	.19	.18	.15	.13	.11	.09	
1800	180	194	209	222	236	248	261	270	279	285	290	292	292	290	286	279	269	256	238	219	198	174	
15	.08	.09	.10	.11	.13	.13	.15	.15	.16	.16	.17	.17	.17	.17	.16	.16	.15	.14	.13	.11	.09	.06	
30	.03	.04	.05	.06	.07	.08	.09	.10	.11	.11	.12	.12	.12	.12	.11	.11	.10	.09	.07	.05	.04	.02	
145	.07	.053	.068	.083	.098	.111	.125	.135	.144	.150	.155	.157	.157	.155	.149	.141	.131	.117	.097	.077	.054	.029	
45	.00	.00	.00	.01	.02	.03	.04	.05	.06	.06	.07	.07	.07	.07	.06	.05	.04	.02	.01	.00	.00	.00	
	.00	.00	.00	.015	.029	.043	.058	.068	.077	.084	.088	.090	.090	.087	.082	.073	.062	.048	.027	.005	.000	.000	
1900	.00	.00	.00	.00	.00	.00	.00	.00	.01	.01	.02	.02	.02	.02	.01	.00	.00	.00	.00	.00	.00	.00	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	

MAY-AUG 32 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/m⁻²) *** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

NST	DATE										
	5	10	15	20	25	30	5	10	15	20	25
0500 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00										
15 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00										
30 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00										
45 .02 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00										
021 207 000 000 000 000 000 000 000 000 000 000 000	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00										
0600 .07 .06 .05 .04 .03 .02 .00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00										
15 170 156 143 128 113 098 081 064 045 026 006 000	.06 .05 .03 .02 .00 .00 .00 .00 .00 .00 .00 .00										
30 244 231 217 203 188 173 156 138 120 100 080 059	.11 .10 .09 .07 .06 .04 .02 .01 .00 .00 .00 .00										
45 317 304 291 277 262 247 230 212 194 174 153 132	.17 .16 .14 .13 .11 .10 .08 .06 .04 .03 .01 .00										
0700 .29 .28 .27 .26 .25 .23 .22 .21 .19 .18 .16 .15	.22 .21 .19 .18 .16 .15 .13 .11 .09 .08 .06 .05										
15 460 446 435 421 407 391 374 356 337 317 296 273	.27 .26 .25 .23 .21 .20 .18 .16 .14 .13 .11 .09										
30 529 517 505 491 477 461 444 426 406 386 364 341	.32 .31 .30 .28 .26 .25 .23 .21 .19 .17 .16 .14										
45 597 585 572 559 544 528 511 493 473 452 430 407	.37 .36 .34 .33 .31 .29 .27 .25 .24 .22 .20 .19										
	.379 355 332 328 286 264										

SEP-DEC 32 N

TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/m**2.)

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .PREVIOUS PAGE
IS BLANK

MST	SEP					OCT					NOV					DEC								
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30		
0800	.49	.48	.47	.46	.45	.43	.42	.41	.39	.37	.36	.34	.32	.30	.28	.26	.25	.23	.22	.21	.19	.18	.17	
0820	662	650	638	624	610	594	576	558	538	516	494	471	442	418	394	371	348	327	307	293	274	262	252	246
15	.54	.53	.52	.51	.49	.48	.47	.45	.44	.42	.40	.38	.35	.34	.32	.31	.29	.28	.26	.25	.24	.23	.22	.22
1725	713	701	687	672	656	638	619	599	578	555	532	502	478	454	431	408	387	367	350	335	323	313	308	
30	.58	.57	.56	.55	.54	.52	.51	.49	.48	.46	.44	.42	.40	.38	.37	.35	.33	.32	.30	.29	.28	.27	.26	.26
785	773	761	747	732	716	698	678	658	636	613	589	560	530	511	488	465	444	424	407	383	381	372	367	
45	.63	.61	.60	.59	.58	.57	.55	.53	.52	.50	.48	.46	.44	.42	.40	.39	.37	.35	.34	.33	.32	.31	.30	.30
842	831	818	804	789	772	754	734	713	691	668	644	614	590	565	541	519	498	479	462	447	436	428	423	
0900	.67	.65	.64	.63	.62	.60	.59	.57	.56	.54	.52	.50	.49	.46	.44	.42	.41	.39	.38	.35	.35	.34	.34	
0920	896	884	872	857	842	825	806	786	765	743	719	695	665	640	616	592	569	548	529	513	499	488	480	476
15	.70	.69	.68	.67	.65	.64	.62	.61	.59	.57	.55	.53	.51	.49	.47	.46	.44	.42	.41	.40	.39	.38	.37	.37
947	935	922	907	891	874	855	835	813	790	767	742	712	687	663	639	616	596	577	561	547	537	530	526	
30	.74	.73	.71	.70	.69	.67	.66	.64	.62	.60	.58	.57	.54	.52	.50	.49	.47	.45	.44	.43	.42	.41	.41	.40
45	.77	.76	.75	.73	.72	.70	.69	.67	.65	.63	.61	.59	.57	.55	.53	.51	.50	.48	.47	.46	.45	.44	.44	.43
*036*024*010	995	979	961	941	920	898	874	850	825	794	769	745	721	699	679	661	645	633	623	617	615			
1000	.80	.79	.77	.76	.75	.73	.71	.70	.68	.66	.64	.62	.60	.58	.56	.54	.52	.51	.49	.43	.42	.41	.40	
*075*063*049*033*016	998	978	956	933	910	885	860	839	804	779	756	734	714	696	681	669	661	656	654					
15	.82	.81	.80	.79	.77	.75	.74	.72	.70	.68	.66	.64	.62	.60	.58	.56	.54	.53	.52	.51	.50	.49	.49	.49
*110*097*083*067*049*030	*010	988	965	941	916	890	851	814	810	787	765	745	728	714	702	694	689	688						
30	.85	.83	.82	.81	.79	.77	.76	.74	.72	.70	.68	.66	.64	.62	.60	.58	.56	.55	.54	.53	.52	.51	.51	.51
*140*127*112*096*078*059	*038*015	992	967	942	916	885	860	836	813	791	772	755	741	731	723	719	719							
45	.86	.85	.84	.82	.81	.79	.77	.76	.74	.72	.70	.67	.65	.63	.61	.60	.58	.56	.55	.54	.53	.53	.53	.53
*166*152*137*120*102*082	*061*038*014	989	963	938	907	881	857	834	813	795														

SEP-DEC 32 N TABLE B-1 SOLAR PARAMETERS COS Z XG (W/M**2.) *** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	DATE												DEC											
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1100 .88 .87 .85 .84 .82 .81 +187+173+157+140+121+101	.79 .77 .75 .73 .71 .69 +079+056+031+006 980 954	.66 .64 .62 .61 .59 .58 +092+068+044+018 992 956	.67 .65 .63 .62 .60 .59 +010+076+051+025 993 973	.68 .66 .64 .62 .61 .59 +017+093 871 851 834	.58 .57 .56 .55 .55 .55 +019 803 800 795 794 796	.57 .56 .54 .54 .54 .54 +010 795 793 789 784 782 784																		
15 .89 .88 .87 .85 .83 .82 +203+189+173+155+136+115	.80 .78 .76 .74 .72 .70 +080+078+076+074+072 970	.67 .65 .63 .62 .60 .59 +042+017 893 871 851 834	.58 .57 .56 .55 .55 .55 +019 803 800 795 794 796	.57 .56 .55 .55 .55 .55 +024 813 805 801 801 804	.57 .56 .55 .55 .55 .55 +024 813 805 801 801 804																			
30 .90 .89 .87 .86 .84 .82 +215+200+183+165+145+124	.80 .78 .76 .74 .72 .70 +010+076+051+025 993 973	.68 .66 .64 .62 .61 .60 +019 896 874 855 838	.58 .57 .56 .55 .55 .55 +024 813 805 801 801 804	.57 .56 .55 .55 .55 .55 +024 813 805 801 801 804																				
45 .91 .89 .88 .86 .84 .83 +222+206+189+170+150+127	.81 .79 .76 .74 .72 .70 +010+079+054+028+001 975	.68 .66 .64 .62 .61 .60 +044+019 896 874 855 838	.58 .57 .56 .55 .55 .55 +024 813 805 801 801 804	.57 .56 .55 .55 .55 .55 +024 813 805 801 801 804																				
1200 .91 .89 .88 .86 .84 .82 +224+208+190+170+149+127	.80 .78 .76 .74 .72 .70 +010+077+051+025 998 972	.68 .66 .64 .62 .61 .59 +041+016 893 872 853 837	.58 .57 .56 .55 .55 .55 +023 813 806 803 803 807	.57 .56 .55 .55 .55 .55 +023 813 806 803 803 807																				
15 .91 .89 .88 .86 .84 .82 +221+204+186+166+144+121	.80 .78 .76 .74 .71 .69 +096+070+044+017 991 964	.67 .65 .63 .62 .60 .59 +033+009 866 865 847 831	.58 .57 .56 .55 .55 .55 +018 803 802 800 801 806	.57 .56 .55 .55 .55 .55 +018 803 802 800 801 806																				
30 .90 .89 .87 .85 .83 .81 +213+196+177+156+134+110	.79 .77 .75 .73 .71 .68 +085+059+032+005 978 951	.66 .64 .62 .61 .59 .56 +021+097 874 854 836 820	.57 .57 .56 .55 .55 .55 +008 795 793 794 794 799	.56 .55 .55 .55 .55 .55 +008 795 793 794 794 799																				
45 .89 .88 .86 .84 .82 .80 +201+183+163+142+118+094	.78 .76 .74 .71 .69 .67 +068+042+015 988 961 934	.65 .63 .61 .60 .58 .57 +003+079 657 637 820 805	.56 .55 .55 .55 .55 .55 +023 715 714 715 720 728	.55 .54 .54 .54 .54 .55 +023 715 714 715 720 728																				
1300 .88 .86 .84 .83 .81 .79 +183+165+144+122+098+073	.76 .74 .72 .70 .68 .66 +047+020 993 966 938 912	.63 .61 .60 .58 .57 .56 +081+053 836 816 793 785	.55 .54 .54 .54 .54 .55 +074 767 765 763 766 773	.55 .54 .54 .54 .54 .55 +074 767 765 763 766 773																				
15 .86 .85 .83 .81 .79 .77 +161+142+121+098+074+048	.75 .72 .70 .68 .65 .64 +022 994 966 939 911 885	.61 .60 .58 .56 .55 .54 +053+031 610 791 774 761	.53 .52 .52 .52 .52 .53 +051 744 743 741 745 752	.53 .52 .52 .52 .52 .53 +051 744 743 741 745 752																				
30 .84 .83 .81 .79 .77 .75 +135+115+093+069+044+018	.72 .70 .68 .66 .64 .61 +091 963 935 907 880 854	.59 .57 .56 .54 .53 .52 +024 600 779 761 745 732	.51 .51 .51 .51 .51 .51 +023 715 714 715 720 728	.51 .51 .51 .51 .51 .51 +023 715 714 715 720 728																				
45 .82 .80 .78 .76 .74 .72 +106+083+061+036+011 984	.70 .68 .65 .63 .61 .59 +056 928 900 872 844 818	.57 .55 .53 .52 .51 .50 +078+065 745 727 711 699	.49 .48 .48 .48 .48 .49 +060 685 662 685 662 699	.49 .48 .48 .48 .48 .49 +060 685 662 685 662 699																				

TABLE B-1 SOLAR PARAMETERS COS Z ... SIGNIFIES COS Z = 1.
 SEP-DEC 32 N X0 (W, H, *2.) ... 1000 TO VALUES PRECEDED BY

MST	DATE										DATE										DATE									
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
1400	.79	.77	.76	.74	.71	.69	.67	.65	.62	.60	.58	.56	.54	.52	.50	.49	.48	.47	.46	.45	.43	.41	.40	.46	.46	.47				
	*068	*047	*024	999	973	945	917	888	860	832	804	778	743	726	706	688	673	662	654	643	616	600	656	665						
15	.76	.75	.73	.70	.68	.66	.64	.61	.59	.57	.55	.53	.51	.49	.47	.46	.45	.44	.44	.43	.43	.43	.44	.44	.44					
	*029	*007	983	957	930	902	874	845	816	788	760	734	705	692	663	646	632	621	613	603	603	611	618	628						
30	.73	.71	.69	.67	.65	.63	.60	.58	.56	.54	.51	.49	.47	.45	.44	.43	.42	.41	.40	.40	.40	.41	.41	.41						
	985	962	938	911	884	855	826	797	768	739	712	686	637	625	616	599	586	575	569	565	565	569	576	586						
45	.70	.68	.66	.63	.61	.59	.57	.54	.52	.50	.48	.46	.43	.42	.40	.39	.38	.37	.37	.37	.37	.38	.38	.38						
	938	914	889	862	834	805	775	746	716	688	660	634	606	584	565	549	536	527	520	519	513	523	530	541						
1500	.66	.64	.62	.60	.57	.55	.53	.50	.48	.46	.44	.42	.40	.38	.37	.35	.34	.34	.33	.33	.33	.34	.35							
	887	862	836	809	780	750	720	691	661	632	605	579	551	530	512	496	484	475	469	467	468	473	481	492						
15	.62	.60	.58	.55	.53	.51	.48	.46	.44	.42	.39	.38	.35	.34	.32	.31	.30	.30	.29	.29	.30	.30	.31							
	832	807	780	752	723	693	662	632	603	574	547	521	493	472	454	440	428	419	414	413	414	420	428	440						
30	.57	.55	.53	.51	.49	.46	.44	.42	.39	.37	.35	.33	.31	.30	.28	.27	.26	.26	.25	.25	.26	.26	.27							
	775	749	721	692	662	632	601	571	541	512	485	460	432	412	394	380	369	361	356	355	358	364	373	385						
45	.53	.51	.49	.46	.44	.42	.39	.37	.35	.32	.30	.29	.26	.25	.24	.23	.22	.21	.21	.21	.22	.22	.23							
	714	687	659	630	599	568	537	507	477	448	421	396	363	349	332	318	307	300	296	295	298	305	314	327						
1600	.48	.46	.44	.42	.39	.37	.34	.32	.30	.28	.26	.24	.22	.20	.19	.18	.17	.17	.17	.17	.17	.17	.19							
	651	623	595	564	534	502	471	440	410	381	354	329	303	283	267	253	243	236	233	233	236	243	253	266						
15	.43	.41	.39	.37	.34	.32	.29	.27	.25	.23	.21	.19	.23	215	199	187	177	171	168	163	172	179	189	202						
	585	557	528	497	466	434	402	371	341	312	286	261	164	146	130	118	109	103	101	102	106	113	124	137						
30	.38	.36	.34	.31	.29	.27	.24	.22	.20	.18	.16	.14	.12	.10	.09	.08	.07	.07	.07	.08	.08	.09	.10							
	517	489	458	427	396	363	332	300	270	242	215	190	093	075	050	048	039	034	032	033	038	046	056	070						

SEP-DEC 32 N TABLE B-1 SOLAR PARAMETERS CUS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY *

*** SIGNIFIES CUS Z = 1.

MST	SEP					OCT					NOV					DEC				
	5	10	15	20	30	5	10	15	20	30	5	10	15	20	30	5	10	15	20	30
1700	.28	.26	.23	.21	.18	.14	.11	.09	.07	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00
	376	347	315	283	251	218	186	154	124	96	69	.020	.002	.000	.000	.000	.000	.000	.000	.001
15	.23	.20	.18	.15	.13	.11	.08	.06	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	304	274	242	209	176	143	111	79	49	21	00	.000	.000	.000	.000	.000	.000	.000	.000	.000
30	.17	.15	.12	.10	.07	.05	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	231	200	167	135	101	068	036	004	000	000	000	.000	.000	.000	.000	.000	.000	.000	.000	.000
45	.12	.09	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	157	125	093	059	026	000	000	000	000	000	000	.000	.000	.000	.000	.000	.000	.000	.000	.000
1800	.06	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	083	051	017	000	000	000	000	000	000	000	000	.000	.000	.000	.000	.000	.000	.000	.000	.000
15	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	008	000	000	000	000	000	000	000	000	000	000	.000	.000	.000	.000	.000	.000	.000	.000	.000
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	.000	.000	.000	.000	.000	.000	.000	.000	.000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	.000	.000	.000	.000	.000	.000	.000	.000	.000

SEP-DEC 32 N TABLE B-1 SOLAR PARAMETERS $\cos^2 Z_{X0}$ (W/m⁻².)

** SIGNIFIES $\cos Z = 1$.

** ADD 1000 TO VALUES PRECEDED BY *

MST	JAN					FEB					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
0600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
0600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
0700	.00	.00	.00	.00	.00	.01	.01	.03	.04	.06	.07	.09	.12	.15	.17	.19	.21	.24	.26	
15	.05	.05	.05	.05	.05	.06	.07	.08	.09	.11	.13	.15	.18	.20	.22	.25	.27	.29	.32	
30	.10	.10	.10	.10	.10	.11	.12	.13	.15	.16	.18	.20	.23	.25	.28	.30	.32	.34	.37	
45	.15	.14	.14	.15	.15	.16	.17	.18	.20	.21	.23	.25	.28	.30	.32	.34	.36	.39	.41	
153	206	204	204	207	214	224	237	257	276	299	323	350	395	425	455	485	515	543	576	602

JAN-APR 30 N TABLE B-1 SOLAR PARAMETERS $\cos^2 \chi_0$ ($w/m^2 \cdot K$)

... SIGNIFIES $\cos^2 \chi = 1$
ADD 1000 TO VALUES PRECEDED BY .

PREVIOUS PAGE
IS BLANK

C

MST	DATE												APR												
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
0800	.19	.19	.19	.19	.20	.21	.22	.23	.25	.26	.29	.30	.34	.36	.38	.40	.42	.45	.47	.41	.51	.53	.54	.55	
	272	270	271	275	282	292	306	326	347	369	394	421	460	.993	.525	.555	.584	.613	.645	.661	.632	.713	.731	.747	
15	.24	.24	.24	.24	.25	.25	.26	.28	.30	.31	.33	.35	.34	.41	.43	.45	.47	.50	.52	.54	.56	.57	.59	.60	
	335	334	335	339	347	359	373	394	414	437	462	486	535	.564	.594	.623	.652	.679	.711	.735	.757	.777	.794	.809	
30	.28	.28	.28	.28	.29	.30	.31	.33	.34	.36	.38	.40	.43	.45	.43	.50	.52	.54	.57	.53	.60	.62	.63	.64	
	396	395	397	402	410	422	437	459	480	503	528	555	601	.636	.659	.688	.716	.743	.774	.797	.819	.838	.855	.869	
45	.32	.32	.32	.33	.33	.34	.35	.37	.39	.40	.42	.44	.44	.50	.52	.54	.57	.59	.61	.63	.65	.66	.67	.69	
	454	453	456	461	471	483	499	521	542	566	591	618	664	.693	.722	.750	.778	.804	.834	.857	.877	.896	.912	.926	
0900	.36	.36	.36	.37	.37	.38	.40	.41	.43	.45	.47	.49	.52	.54	.56	.59	.61	.63	.65	.67	.63	.70	.71	.73	
	508	508	511	518	528	541	557	580	602	626	651	678	724	.753	.781	.809	.836	.862	.891	.913	.933	.951	.966	.979	
15	.40	.40	.40	.40	.41	.42	.43	.45	.47	.49	.51	.53	.56	.58	.61	.63	.65	.67	.69	.71	.72	.74	.75	.76	
	559	560	564	571	582	595	612	636	658	682	708	735	780	.802	.837	.865	.891	.917	.945	.965	.985	.002*	.017*	.029	
30	.43	.43	.44	.45	.46	.46	.47	.49	.51	.52	.54	.56	.60	.62	.64	.66	.68	.70	.73	.74	.75	.77	.79	.80	
	607	608	613	621	632	646	663	688	710	735	761	788	833	.861	.889	.916	.942	.967	.994	.015	.033	.049*	.063*	.075	
45	.46	.46	.47	.47	.48	.49	.50	.52	.54	.56	.58	.60	.63	.66	.68	.70	.72	.74	.76	.73	.79	.81	.82	.83	
	651	653	658	667	678	693	711	736	759	784	810	837	882	.910	.937	.964	.990	.014	.040	.060	.078	.093*	.106*	.117	
1000	.49	.49	.49	.50	.51	.52	.54	.55	.57	.59	.61	.63	.67	.69	.71	.73	.75	.77	.79	.81	.82	.84	.85	.86	
	691	693	699	708	721	737	755	780	804	829	855	882	927	.954	.982	.008*	.033	.056	.082*	.101	.118	.133*	.145*	.156	
15	.51	.52	.52	.53	.54	.55	.56	.58	.60	.62	.64	.66	.70	.72	.74	.76	.78	.80	.82	.83	.85	.87	.88		
	727	730	736	746	759	776	795	820	844	869	896	923	967	.995	.C21*	.047*	.071	.094	.119*	.137	.154	.168*	.180*	.190	
30	.54	.54	.54	.55	.56	.57	.59	.61	.63	.65	.67	.69	.72	.74	.76	.78	.80	.82	.84	.86	.87	.88	.89	.90	
	758	762	769	780	794	810	830	856	880	906	932	960	*003	.030	.057*	.082*	.105	.128	*152*	.165	.185	.199*	.210*	.219	
45	.56	.56	.56	.57	.58	.60	.61	.63	.65	.67	.69	.71	.74	.77	.79	.81	.82	.84	.86	.88	.89	.90	.91	.92	
	785	789	797	809	823	841	861	888	912	938	964	991	*035	.061	.087*	.112*	.135	.156	*180*	.197	.212	.225*	.236*	.245	

JAN-APR 30 N

ADD 1000 TO VALUES PRECEDED BY *

MST	DATE												APR																		
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
1100	.57	.58	.59	.60	.61	.63	.65	.67	.69	.71	.73	.76	.79	.80	.82	.84	.86	.88	.89	.91	.92	.93	.94	.94	.94						
808	812	821	833	848	866	887	914	939	965	991	018	*061	*083	*113	*137	*160	*181	*203	*220	*234	*246	*257	*265								
15	.58	.59	.59	.60	.62	.63	.64	.67	.68	.70	.72	.75	*083	*109	*134	*158	*180	*200	*222	*237	*251	*263	*273	*281							
825	831	840	853	869	887	908	936	961	987	*014	*040	*100	*126	*150	*173	*194	*214	*235	*250	*264	*275	*285	*292								
30	.59	.60	.60	.61	.63	.64	.66	.68	.70	.72	.74	.76	*100	*126	*150	*173	*194	*214	*235	*250	*264	*275	*285	*292							
839	844	855	868	885	904	925	953	978	004	*031	*058	*69	*71	*73	*75	*77	*80	*82	*84	*86	*88	*90	*92	*93	*95	*96					
45	.60	.60	.61	.62	.63	.65	.66	.69	.71	.73	.75	.77	*965	*990	*017	*043	*070	*112	*137	*161	*183	*204	*223	*244	*255	*271	*282	*291	*299		
1200	.60	.61	.61	.63	.64	.65	.67	.69	.71	.73	.75	.77	*972	*998	*024	*051	*077	*116	*143	*167	*189	*209	*227	*247	*261	*274	*284	*293	*300		
850	857	869	884	901	921	944	975	990	000	*026	*053	*079	*81	*82	*84	*86	*88	*89	*91	*92	*93	*95	*96	*96							
15	.60	.61	.61	.63	.64	.65	.67	.69	.71	.73	.75	.77	*120	*144	*167	*169	*209	*227	*246	*255	*271	*281	*290	*297							
849	857	869	884	902	923	945	972	997	024	*050	*076	*69	*71	*73	*75	*77	*80	*82	*84	*86	*87	*89	*91	*92	*93	*94	*95	*96			
30	.60	.60	.61	.62	.64	.65	.67	.69	.71	.73	.75	.77	*972	*997	*024	*050	*076	*116	*140	*153	*184	*203	*221	*239	*252	*264	*274	*282	*289		
45	.59	.59	.60	.62	.63	.65	.66	.68	.70	.72	.74	.76	*964	*989	*016	*042	*068	*103	*131	*153	*174	*193	*209	*90	*91	*92	*93	*94	*95		
1300	.58	.58	.59	.61	.62	.64	.65	.68	.70	.72	.74	.76	*951	*977	*003	*029	*055	*179	*201	*222	*244	*266	*287	*89	*90	*91	*92	*93	*93		
816	825	840	857	876	898	921	933	959	985	*011	*036	*66	*68	*70	*72	*74	*77	*79	*81	*83	*84	*85	*87	*88	*89	*90	*91	*92			
15	.56	.57	.58	.59	.61	.62	.64	.66	.68	.70	.72	.74	*075	*098	*119	*139	*156	*172	*075	*098	*119	*139	*156	*172	*189	*202	*221	*229	*235		
796	805	820	838	858	880	903	911	936	962	983	*013	*65	*67	*69	*71	*73	*76	*77	*79	*81	*82	*84	*85	*85	*87	*88	*89	*90			
30	.55	.55	.56	.58	.59	.61	.62	.65	.67	.69	.71	.73	*771	*781	*796	*814	*834	*857	*881	*051	*074	*094	*114	*131	*147	*163	*175	*185	*194	*202	*208
45	.52	.53	.54	.56	.57	.59	.61	.63	.65	.67	.69	.71	*741	*752	*768	*786	*807	*829	*853	*883	*909	*935	*960	*985	*023	*045	*065	*084	*101	*116	

JAN-APR 30 N TABLE B-1 SOLAR PARAMETERS COS Z = 1.
 X0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY -

MST	JAN					FEB					MAR					APR								
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30					
1400	.50	.51	.52	.53	.55	.56	.58	.61	.62	.64	.66	.68	.71	.73	.75	.76	.77	.79	.80	.81	.82	.83	.84	.85
	708	719	735	753	774	797	821	851	877	903	928	952	990	011	031	049	066	081	097	103	118	127	135	141
15	.47	.48	.49	.51	.52	.54	.56	.58	.60	.62	.64	.66	.63	.70	.72	.73	.75	.76	.77	.79	.80	.81	.82	.82
	670	681	697	717	738	761	785	815	840	866	891	915	952	973	992	010	027	041	057	063	076	087	095	101
30	.44	.45	.46	.48	.49	.51	.53	.55	.57	.59	.61	.63	.65	.67	.69	.70	.71	.73	.74	.75	.76	.77	.78	.78
	627	639	656	675	697	720	744	774	799	825	850	873	901	930	949	967	983	997	013	024	034	043	050	057
45	.41	.42	.43	.45	.46	.48	.50	.52	.54	.56	.57	.59	.62	.64	.65	.67	.68	.69	.71	.72	.72	.73	.74	.75
	581	593	611	630	652	675	699	729	754	779	804	828	863	863	902	920	935	949	964	975	985	995	003	010
1500	.38	.39	.40	.41	.43	.44	.46	.48	.50	.52	.54	.56	.58	.60	.62	.63	.64	.65	.67	.68	.69	.70	.70	.71
	532	544	562	581	603	626	650	680	705	730	754	778	813	833	851	868	883	897	912	924	934	943	951	959
15	.34	.35	.36	.37	.39	.41	.42	.45	.46	.48	.50	.52	.55	.56	.58	.59	.60	.61	.63	.64	.65	.66	.67	.67
	479	491	509	529	551	574	598	628	652	677	701	724	758	778	796	813	828	842	857	863	878	887	896	904
30	.30	.31	.32	.33	.35	.37	.38	.41	.42	.44	.46	.48	.50	.52	.53	.55	.56	.57	.58	.59	.60	.61	.62	.63
	422	435	453	473	495	518	542	571	596	620	644	666	700	720	738	754	769	783	798	803	819	829	838	846
45	.26	.27	.28	.29	.31	.33	.34	.36	.38	.40	.42	.43	.46	.47	.49	.50	.51	.53	.54	.55	.55	.57	.57	.58
	363	376	394	414	436	459	483	512	536	560	583	606	639	658	676	692	707	721	736	747	758	767	777	785
1600	.21	.22	.24	.25	.27	.28	.30	.32	.34	.35	.37	.39	.41	.43	.44	.45	.47	.48	.49	.50	.51	.52	.53	.54
	301	314	332	352	374	397	421	449	473	497	520	542	575	594	611	627	642	656	671	682	693	703	713	722
15	.17	.18	.19	.20	.22	.24	.25	.27	.29	.31	.32	.34	.37	.38	.39	.41	.42	.43	.44	.45	.46	.47	.48	.49
	236	249	268	288	310	332	356	384	408	431	454	475	508	526	543	559	574	588	603	615	626	636	646	656
30	.12	.13	.14	.16	.17	.19	.20	.23	.24	.26	.28	.29	.32	.33	.34	.35	.37	.38	.39	.40	.41	.42	.43	.44
	170	183	201	221	243	265	288	316	340	363	385	406	438	456	473	489	504	518	533	545	557	568	578	588
45	.07	.08	.09	.11	.12	.14	.16	.18	.19	.21	.22	.24	.26	.28	.29	.30	.31	.33	.34	.35	.36	.37	.38	.38
	101	114	132	152	174	196	219	247	270	292	314	335	366	384	401	417	432	446	461	474	485	497	508	519

JAN-APR 30 N TABLE B-1 SOLAR PARAMETERS COS² X0 (W/M**2.) *** SIGNIFIES COS² *1.
ADD 1000 TO VALUES PRECEDED BY *

MST	DATE											
	1	5	10	15	20	25	30	5	10	15	20	25
1700	.02	.03	.04	.06	.07	.09	.10	.12	.14	.16	.17	.19
	.031	.044	.062	.082	.103	.125	.147	.175	.197	.219	.241	.262
15	.00	.00	.00	.01	.02	.04	.05	.07	.09	.10	.12	.13
	.000	.000	.010	.031	.052	.074	.101	.123	.145	.166	.187	.217
30	.00	.00	.00	.00	.00	.00	.00	.02	.03	.05	.07	.08
	.000	.000	.000	.000	.000	.000	.000	.027	.048	.070	.091	.111
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.02	.03
	.000	.000	.000	.000	.000	.000	.000	.000	.000	.014	.033	.063
1800	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

JAN-APR 30 N TABLE 8-1 SOLAR PARAMETERS $\cos^2 \gamma_0$ ($w/m^2 \cdot 2$) ADD 1000 TO VALUES PRECEDED BY .

*** SIGNIFIES $\cos^2 \gamma$

NST	MAY					JUN					DATE					AUG								
	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
15	.00	.00	.01	.02	.03	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	
30	.04	.06	.07	.08	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09	
45	.10	.11	.12	.13	.14	.14	.15	.15	.14	.14	.13	.15	.15	.14	.14	.13	.13	.12	.11	.10	.09	.08	.07	
159	129	146	161	173	182	188	192	193	192	189	184	177	168	159	143	136	124	112	106	996	983	970	956	943
0600	.15	.16	.17	.18	.19	.19	.20	.20	.19	.19	.19	.20	.20	.19	.19	.18	.17	.16	.16	.15	.14	.13	.12	
15	202	219	233	244	252	258	262	263	261	258	252	246	237	228	218	207	195	183	173	168	155	143	130	118
30	21	.22	.23	.24	.24	.25	.25	.25	.24	.24	.24	.25	.25	.24	.24	.23	.23	.22	.21	.20	.19	.18	.17	.16
45	276	291	305	315	323	328	332	332	330	327	321	315	306	297	287	277	266	254	240	228	216	204	193	181
159	348	364	376	386	393	398	401	401	399	395	390	383	375	367	357	347	336	325	312	300	289	278	267	256
0700	.37	.38	.39	.39	.40	.40	.40	.40	.40	.40	.40	.40	.40	.40	.40	.39	.38	.37	.36	.35	.34	.33	.32	.31
15	492	505	517	525	531	535	537	537	534	530	525	519	511	503	494	485	476	466	454	444	434	423	413	403
30	562	575	585	593	599	602	604	603	600	596	591	585	578	570	562	553	544	534	523	514	504	495	485	475
45	630	642	652	659	664	668	669	668	665	661	656	650	643	636	628	619	611	602	591	582	573	564	555	546
159	696	708	717	724	728	731	732	731	728	724	719	713	707	699	692	684	676	668	658	647	637	623	614	604

MAY-AUG

30 N

TABLE B-1 SOLAR PARAMETERS

XO (W/M²*2.)

*** SIGNIFIES COS Z ⁻¹.

ADD 1000 TO VALUES PRECEDED BY *

PREVIOUS PAGE
IS BLANK

C

NST	MAY					JUN					DATE					AUG									
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15				
0900	.57	.58	.59	.59	.60		.60	.60	.59	.59	.59		.59	.59	.57	.56	.56	.55	.54	.54	.53	.52	.51	.51	
	760	771	780	786	790	793	793	792	789	785	775		763	751	754	747	739	731	722	714	706	698	689	681	
15	.61	.62	.63	.63	.64	.64	.64	.64	.64	.63	.63		.63	.62	.62	.61	.60	.60	.59	.58	.58	.57	.56	.55	
	822	832	840	846	850	852	852	850	848	844	839	834		828	821	814	807	800	793	784	777	759	761	753	745
30	.66	.66	.67	.68	.68	.68	.68	.68	.68	.68	.68		.67	.66	.66	.65	.65	.64	.63	.63	.62	.61	.61	.60	
	881	891	898	903	907	908	908	906	904	900	895	850		885	879	872	866	859	852	844	837	830	822	814	806
45	.70	.71	.71	.72	.72	.72	.72	.72	.72	.72	.72		.71	.71	.70	.69	.68	.68	.68	.67	.66	.66	.65	.64	
	937	946	953	958	961	962	962	960	957	953	949	944		939	933	927	921	915	909	901	894	887	880	872	864
0900	.74	.74	.75	.76	.76	.76	.76	.76	.76	.76	.75		.75	.74	.74	.73	.73	.72	.72	.71	.71	.70	.69	.68	
	990	998	004	009	012	013		*012*010*008*004*000	995		990	985		979	974	968	962		955	943	942	935	927	919	
15	.77	.78	.79	.79	.79	.79	.79	.79	.79	.79	.79		.79	.78	.78	.77	.77	.76	.76	.75	.74	.74	.73	.72	
	039	047	053	057	059	060		*059*057*055*051*049*	043					*038*035*028*023*018*	012					*005	993	993	986	979	971
30	.81	.81	.82	.82	.83	.83	.83	.83	.82	.82	.82		.82	.81	.81	.80	.80		*79	.79	.78	.77	.77	.76	
	085	092	097	101	103	104		*103*101*099*095*092*	088					*083*079*074*069*	064*059					*052*047*041*034*	027*018				
45	.84	.84	.85	.85	.86	.86	.86	.86	.86	.86	.85		.85	.85	.84	.84	.83	.83	.82	.82	.81	.81	.80	.79	
	126	133	138	142	144	144		*143*141*139*136*132*	129					*125*120*116*112*	107*102					*096*090	*084	*078*	071*	062	
1000	.87	.87	.88	.88	.88	.89	.89	.89	.88	.88	.88		.88	.88	.87	.87	.86	.86	.85	.85	.84	.84	.83	.82	
	164	171	175	178	180	180		*179*178*175*173*	169*166					*162*158*154*150*	146*141					*136*130	*124	*118*	111*	102	
15	.89	.90	.90	.91	.91	.91	.91	.91	.91	.91	.91		.90	.90	.90	.89	.89	.89	.88	.88	.87	.86	.86	.85	
	198	204	208	211	212	213		*212*210*208*	205*203*199					*195*192*189*185*	181*177					*171*16*	*160	*154*	146*	138	
30	.91	.92	.92	.93	.93	.93	.93	.93	.93	.93	.93		.93	.92	.92	.92	.91	.91	.90	.90	.89	.89	.88	.87	
	227	233	237	239	241	241		*240*239*237*	234*232*229					*226*223*219*	216*212*208					*203*193	*192	*185*	178*	169	
45	.93	.94	.94	.95	.95	.95	.95	.95	.95	.95	.95		.95	.94	.94	.94	.93	.93	.92	.92	.91	.91	.90	.89	
	252	257	261	263	265	265		*264*263*261*	259*257*254					*251*248*245*	242*239*235					*230*225	*219	*212*	205*	196	

MAY-AUG 30 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M*2.) *** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

NST	MAY										JUN										JUL										AUG									
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30										
1100	.95	.95	.96	.96	.96	.96	.97	.97	.97	.96	.96	.96	.96	.96	.96	.95	.95	.95	.94	.94	.93	.92	.92	.91	.94	.94	.93	.92	.92	.91										
	*272*277*281*283*284*284						*284*283*281*279*277*275						*273*270*267*264*261*258						*253*243*242*235*227*218																					
15	.96	.96	.97	.97	.97	.98	.98	.98	.98	.98	.98	.98	.97	.97	.97	.96	.96	.96	.96	.95	.94	.93	.92	.92	.91	.96	.95	.94	.93	.92	.91									
	*288*292*296*298*299*300						*299*298*297*295*294*292						*290*287*285*282*279*276						*271*265*260*253*245*235																					
30	.97	.97	.98	.98	.98	.98	.99	.99	.99	.99	.99	.99	.98	.98	.98	.97	.97	.97	.97	.96	.95	.94	.93	.93	.93	.97	.96	.95	.94	.93	.92									
	*298*303*306*308*310*310						*310*309*308*307*305*304						*302*300*298*296*293*289						*284*279*273*266*258*248																					
45	.97	.98	.98	.98	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.98	.98	.98	.97	.97	.96	.95	.94	.93	.97	.96	.95	.94	.93	.92									
	*304*309*312*314*316*316						*316*316*315*314*313*312						*310*309*307*304*302*298						*293*287*282*275*266*255																					
1200	.97	.98	.98	.98	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.98	.98	.98	.97	.97	.96	.95	.94	.93	.98	.97	.96	.95	.94	.93									
	*306*310*313*315*317*318						*318*318*317*317*316*315						*314*312*311*309*306*303						*298*292*289*278*269*258																					
15	.97	.97	.98	.98	.98	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.98	.98	.98	.98	.97	.96	.95	.94	.93	.98	.97	.96	.95	.94	.93									
	*302*306*310*312*314*315						*315*315*315*315*314*314						*313*312*310*308*306*302						*297*292*285*277*267*256																					
30	.96	.97	.97	.98	.98	.98	.98	.99	.99	.99	.99	.99	.98	.99	.99	.98	.98	.98	.98	.97	.97	.96	.95	.94	.93	.97	.96	.95	.94	.93	.92									
	*294*298*301*304*306*307						*308*308*308*308*308*308						*307*306*305*303*301*297						*292*285*279*271*261*249																					
45	.95	.96	.96	.97	.97	.97	.98	.98	.98	.98	.98	.98	.98	.98	.98	.98	.97	.97	.97	.96	.95	.95	.94	.93	.92	.96	.95	.95	.94	.93	.92									
	*281*285*289*291*293*295						*296*297*297*298*298*298						*297*297*296*294*291*288						*282*275*269*260*249*237																					
1300	.94	.94	.95	.95	.96	.96	.96	.96	.97	.97	.97	.97	.96	.97	.97	.97	.96	.96	.96	.95	.95	.94	.93	.92	.91	.95	.95	.94	.93	.92	.91									
	*263*267*271*274*276*278						*280*281*282*282*283*2E2						*285*282*281*280*277*274						*268*261*254*244*233*220																					
15	.92	.93	.93	.94	.94	.94	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.94	.94	.94	.93	.93	.92	.91	.90	.89	.94	.93	.93	.92	.91	.90									
	*241*245*249*252*255*257						*259*260*262*263*263*264						*261*263*261*259*255						*249*242*235*224*212*198																					
30	.90	.91	.91	.92	.92	.92	.91	.91	.91	.91	.91	.91	.91	.91	.91	.91	.91	.91	.91	.91	.91	.91	.91	.91	.91	.92	.92	.92	.92	.92	.91									
	*214*219*222*226*229*231						*234*236*237*239*240*241						*241*240*238*235*232						*225*213*211*199*186*172																					
45	.88	.88	.89	.89	.90	.90	.91	.91	.91	.91	.91	.91	.91	.91	.91	.91	.91	.91	.91	.91	.91	.91	.91	.91	.90	.89	.88	.87	.86	.85	.84									
	*183*187*192*195*199*201						*205*207*209*211*212*213						*214*213*211*208*204						*197*195*180*169*156*141																					

MAY-AUG 30 N TABLE B-1 SOLAR PARAMETERS COS Z XC (W/N*+2.) ^{** SIGNIFIES COS Z = 1.} ADD 1000 TO VALUES PRECEDED BY .

MST	MAY					JUN					DATE					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
1400	.85	.86	.87	.87	.88	*171*174*176*178*180*182	.88	.88	.89	.89	.89	.88	.88	.87	.86	.85	.84	.82						
	*147*152*157*161*164*168						*182*182*181*180*177*172							*165*157*171*135*122*106										
15	.82	.83	.84	.84	.85	*134*137*140*142*144*145	.85	.86	.86	.86	.87	.87	.87	.86	.86	.85	.84	.82	.81	.79				
	*107*113*118*122*126*130						*147*147*146*144*141*136							*128*122*110*097*083*066										
30	.79	.80	.81	.81	.82	*093*097*100*103*105*107	.82	.83	.83	.83	.83	.84	.84	.84	.83	.83	.82	.81	.80	.78	.76			
	*064*070*075*080*084*088						*106*108*107*105*101*096							*088*079*063*055*040*023										
45	.76	.76	.77	.77	.78	*048*052*056*059*062*064	.79	.79	.80	.80	.80	.80	.80	.80	.79	.78	.77	.75	.74	.73				
	*016*023*028*034*039*043						*065*065*064*062*058*053							*044*034*023*009	993	975								
1500	.72	.72	.73	.74	.75	*000*005*009*012*015*017	.75	.76	.76	.77	.77	.77	.77	.77	.76	.76	.75	.74	.73	.72	.70	.69		
	966	972	978	984	989	995	*0019*019*018*015*011*005										996	985	974	959	943	924		
15	.68	.68	.69	.70	.70	.71	.71	.72	.72	.73	.73	.73	.73	.73	.73	.72	.72	.71	.73	.69	.68	.66	.65	
	911	918	925	931	937	943	949	954	958	962	965	968	969	969	968	965	961	955	945	934	921	906	889	869
30	.63	.64	.65	.66	.66	.67	.67	.68	.68	.69	.69	.69	.69	.69	.69	.68	.68	.67	.66	.65	.64	.62	.60	
	854	861	868	875	882	898	895	900	905	909	913	915	916	916	915	912	908	901	890	879	865	850	832	811
45	.59	.60	.61	.62	.62	.63	.63	.64	.64	.65	.65	.65	.65	.65	.65	.64	.64	.63	.62	.60	.59	.58	.56	
	794	802	809	817	824	831	838	844	849	853	857	860	861	861	859	856	851	844	833	821	807	790	771	750
1600	.54	.55	.56	.57	.57	.58	.59	.59	.60	.60	.61	.61	.61	.61	.60	.60	.59	.58	.57	.56	.54	.53	.51	
	731	739	748	756	763	771	779	785	790	795	799	802	803	803	801	798	792	785	773	763	745	728	708	687
15	.49	.50	.51	.52	.53	.53	.54	.55	.55	.55	.56	.56	.56	.56	.56	.55	.54	.53	.52	.51	.50	.48	.46	
	666	675	684	692	700	708	717	724	730	735	738	741	743	742	740	737	731	723	710	697	681	663	643	620
30	.45	.45	.46	.47	.48	.48	.49	.50	.50	.51	.51	.51	.51	.51	.51	.50	.50	.49	.47	.46	.45	.43	.41	
	598	608	618	627	636	644	653	660	667	672	676	679	680	680	678	674	667	659	645	632	615	596	575	552
45	.39	.40	.41	.42	.43	.43	.44	.45	.45	.46	.46	.46	.47	.47	.46	.46	.45	.44	.42	.41	.39	.38	.36	
	529	540	550	560	569	578	588	596	602	608	612	615	616	615	613	609	602	593	579	564	547	528	506	482

MAY-AUG 30 N TABLE B-1 SOLAR PARAMETERS COS² X₀ (W/M²*².) *** SIGNIFIES' COS² =¹. ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					DATE					AUG							
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30	
1700	.34	.35	.36	.37	.38	.38	.39	.40	.40	.41	.42	.42	.42	.41	.41	.40	.40	.38	.37	.36	.34	.32	.31
459	470	481	491	501	511	521	529	536	542	546	549	550	549	547	542	535	525	510	495	477	457	435	410
15	.29	.30	.31	.32	.32	.33	.34	.35	.36	.36	.36	.37	.36	.36	.36	.35	.34	.33	.32	.30	.29	.27	.25
387	399	410	421	432	442	453	462	469	475	479	482	483	482	479	474	466	456	441	425	405	385	362	337
30	.23	.24	.25	.26	.27	.28	.29	.30	.30	.31	.31	.31	.31	.31	.31	.30	.29	.28	.27	.25	.23	.22	.20
315	327	339	351	362	373	385	393	401	407	411	414	415	414	411	405	397	386	370	353	334	313	289	263
45	.18	.19	.20	.21	.22	.23	.24	.24	.25	.26	.26	.26	.26	.26	.26	.25	.24	.22	.21	.20	.18	.16	.14
242	255	267	280	292	303	315	324	332	338	343	346	346	345	341	335	327	315	298	281	261	239	215	198
1800	.13	.14	.15	.16	.17	.18	.19	.19	.20	.20	.21	.21	.21	.21	.20	.19	.18	.17	.16	.14	.12	.10	.08
168	182	196	209	221	233	246	255	263	269	274	277	277	276	272	265	256	244	226	209	188	165	140	113
15	.07	.08	.09	.10	.11	.12	.13	.14	.15	.15	.16	.16	.16	.15	.15	.14	.13	.12	.10	.09	.07	.05	.03
095	110	124	137	150	163	176	186	194	200	205	208	208	206	202	195	185	173	154	135	115	091	065	037
30	.02	.03	.04	.05	.06	.07	.08	.09	.09	.10	.11	.11	.10	.10	.09	.09	.08	.06	.05	.03	.01	.00	.00
022	037	052	067	080	093	107	117	125	132	137	139	139	137	132	125	115	102	083	063	042	016	000	000
45	.00	.00	.00	.00	.01	.02	.03	.04	.04	.05	.05	.05	.05	.05	.04	.03	.02	.01	.00	.00	.00	.00	.00
000	000	000	000	000	011	024	038	048	057	064	068	071	071	068	063	055	045	031	011	003	000	000	000

MAY-AUG 30 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.)

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	DATE	DEC			
																			SEP	OCT	NOV	DEC	
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
015	.002	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
0600	.07	.06	.05	.04	.03	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
091	.078	.066	.053	.039	.025	.010	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
15	.12	.11	.11	.10	.09	.08	.06	.05	.04	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.18	.17	.16	.15	.14	.13	.12	.11	.10	.08	.07	.05	.04	.02	.03	.00	.00	.00	.00	.00	.00	.00	.00
45	.24	.23	.22	.21	.20	.19	.18	.16	.15	.14	.12	.11	.09	.07	.05	.04	.03	.01	.00	.00	.00	.00	.00
317	.305	.294	.281	.268	.254	.239	.223	.206	.188	.168	.148	.122	.101	.079	.057	.036	.015	.000	.000	.000	.000	.000	.000
0700	.29	.28	.27	.26	.25	.24	.23	.22	.20	.19	.17	.16	.14	.12	.11	.09	.08	.06	.05	.04	.02	.01	.00
390	.380	.368	.356	.343	.329	.314	.297	.280	.261	.242	.221	.195	.173	.151	.129	.107	.087	.068	.053	.044	.020	.009	.001
165	.34	.33	.33	.32	.31	.29	.28	.27	.26	.24	.23	.21	.19	.18	.16	.14	.13	.11	.10	.09	.07	.06	.05
45	.45	.44	.43	.42	.41	.40	.38	.37	.36	.34	.33	.31	.29	.27	.26	.24	.22	.21	.19	.18	.17	.16	.15
603	.592	.581	.569	.556	.542	.526	.509	.491	.472	.451	.429	.402	.380	.357	.334	.312	.291	.272	.253	.235	.226	.216	.209

TABLE B-1 SOLAR PARAMETERS CCS Z X0 (W/4**2.) SEP-DEC 30 N

... SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

PREVIOUS PAGE
IS BLANK



MST	SEP									OCT									NOV									DEC								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
0800	.50	.49	.48	.47	.46	.45	.43	.42	.40	.39	.37	.36	.34	.32	.30	.28	.27	.25	.24	.23	.21	.20	.19	.336	.313	.303	.290	.281	.274							
	669	659	648	636	623	608	593	576	557	537	516	494	467	444	421	398	376	355																		
15	.54	.54	.53	.52	.50	.49	.48	.47	.45	.43	.42	.40	.33	.30	.28	.27	.26	.25	.24	.24	.23	.21	.20	.19	.397	.380	.366	.353	.343	.337						
	733	723	712	700	687	672	656	639	620	600	579	556	521	505	482	459	437	416																		
30	.59	.58	.57	.56	.55	.54	.52	.51	.49	.48	.46	.44	.42	.40	.39	.37	.35	.34	.32	.31	.30	.29	.28	.455	.433	.424	.412	.403	.397							
	795	785	774	761	748	733	717	699	680	659	633	615	587	564	542	517	495	474																		
45	.63	.62	.61	.60	.59	.58	.56	.55	.53	.52	.50	.48	.46	.44	.43	.41	.39	.38	.36	.35	.34	.33	.32	.511	.494	.480	.468	.460	.455							
	853	843	832	820	806	791	774	756	736	716	694	671	643	619	595	572	550	529																		
0900	.67	.66	.65	.64	.63	.62	.60	.59	.57	.56	.54	.52	.50	.48	.46	.44	.43	.41	.40	.39	.38	.37	.36	.36	.563	.545	.532	.522	.514	.509						
	908	898	887	874	860	845	828	809	789	768	746	723	694	670	647	624	602	581																		
15	.71	.70	.69	.68	.67	.66	.64	.63	.61	.59	.57	.56	.53	.51	.50	.48	.46	.45	.43	.42	.41	.40	.40	.40	.611	.595	.582	.571	.564	.560						
	960	949	938	925	911	895	878	859	839	817	794	771	742	718	695	672	650	629																		
30	.75	.74	.73	.72	.70	.69	.67	.66	.64	.62	.61	.59	.56	.55	.53	.51	.49	.48	.47	.45	.44	.43	.43	.656	.640	.627	.617	.611	.607							
	*007	997	985	972	958	941	924	904	884	862	839	815	786	762	739	716	694	674																		
45	.78	.77	.76	.75	.73	.72	.70	.69	.67	.65	.63	.62	.53	.57	.56	.54	.52	.51	.49	.43	.42	.41	.40	.40	.696	.681	.666	.660	.654	.651						
	*051	*041	*029	*015	*000	984	965	946	925	903	879	855	826	802	778	755	734	714																		
1000	.81	.80	.79	.78	.76	.75	.73	.72	.70	.68	.66	.64	.62	.60	.58	.56	.55	.53	.52	.51	.50	.49	.49	.49	.52	.51	.50	.49	.49	.49						
	*091	*080	*068	*054	*038	*021	*003	983	961	939	915	891	862	838	814	791	770	750	733	713	707	698	693	691												
15	.84	.83	.81	.79	.77	.76	.74	.72	.70	.68	.66	.64	.62	.60	.59	.57	.56	.54	.53	.52	.51	.51	.51	.51	.765	.751	.740	.732	.727	.726						
	*126	*115	*102	*088	*072	*055	*036	*015	993	970	947	922	893	869	845	822	801	782																		
30	.86	.85	.84	.82	.81	.79	.78	.76	.74	.72	.70	.68	.66	.64	.62	.61	.59	.58	.56	.55	.54	.54	.54	.54	.793	.780	.763	.762	.758	.757						
	*157	*146	*132	*118	*101	*083	*064	*043	*021	997	973	949	919	895	872	849	828	810																		
45	.88	.87	.85	.84	.83	.81	.79	.78	.76	.74	.72	.70	.68	.66	.64	.62	.61	.59	.58	.57	.56	.55	.55	.55	.817	.804	.794	.787	.784	.784						

SEP-DEC 30 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M*2.) ** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	SEP										OCT										NOV										DEC									
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30																
1100	.89	.88	.87	.86	.84	.82	*105*193*179*163*145*126	.81	.79	.77	.75	.73	.71	.61	.67	.65	.63	.62	.60	.59	.53	.58	.57	.57	.57															
	*106*094*061*037*013	988	*106*094*061*037*013	988	*106*094*061*037*013	988	*106*094*061*037*013	958	*34	911	869	869	851	835	823	811	808	805	806	835	823	811	808	805	806															
15	.91	.89	.88	.87	.85	.83	*222*209*194*178*160*141	.82	.80	.78	.76	.74	.72	.70	.68	.66	.64	.63	.61	.60	.53	.59	.58	.58	.58															
	*120*097*074*050*025*000	*120*097*074*050*025*000	*120*097*074*050*025*000	*120*097*074*050*025*000	*120*097*074*050*025*000	*120*097*074*050*025*000	*120*097*074*050*025*000	970	*46	923	901	882	864	849	833	*22	824	822	824	849	833	*22	824	822	824															
30	.92	.90	.89	.87	.86	.84	*234*220*205*188*170*150	.82	.80	.78	.76	.74	.72	.70	.68	.66	.65	.63	.62	.61	.60	.59	.59	.59	.59															
	*128*105*082*057*032*007	*128*105*082*057*032*007	*128*105*082*057*032*007	*128*105*082*057*032*007	*128*105*082*057*032*007	*128*105*082*057*032*007	*128*105*082*057*032*007	977	953	930	909	873	859	847	H3	835	834	836	859	847	H3	835	834	836																
45	.92	.91	.89	.88	.86	.84	*241*227*211*194*174*154	.83	.81	.79	.77	.75	.73	.70	.68	.67	.65	.64	.62	.61	.60	.59	.59	.59																
	*132*108*084*059*034*009	*132*108*084*059*034*009	*132*108*084*059*034*009	*132*108*084*059*034*009	*132*108*084*059*034*009	*132*108*084*059*034*009	*132*108*084*059*034*009	975	*55	933	912	893	877	863	852	845	841	841	844	863	852	845	841	844																
1200	.92	.91	.89	.88	.86	.84	*243*228*212*194*174*153	.82	.81	.78	.76	.74	.72	.70	.68	.66	.65	.63	.62	.61	.63	.60	.60	.60																
	*130*106*082*057*031*006	*130*106*082*057*031*006	*130*106*082*057*031*006	*130*106*082*057*031*006	*130*106*082*057*031*006	*130*106*082*057*031*006	*130*106*082*057*031*006	976	*53	930	910	891	876	863	853	*46	843	843	847	863	853	*46	843	843	847															
15	.92	.91	.89	.88	.86	.84	*240*225*208*189*169*147	.82	.80	.78	.76	.74	.72	.69	.68	.66	.64	.63	.62	.61	.60	.59	.59	.60																
	*124*099*074*049*023	958	*124*099*074*049*023	958	*124*099*074*049*023	958	*124*099*074*049*023	963	*45	923	903	885	870	857	843	H2	840	841	846	857	843	H2	840	841	846															
30	.91	.90	.88	.87	.85	.83	*232*216*198*179*158*136	.81	.79	.77	.75	.73	.71	.69	.67	.65	.64	.62	.61	.60	.53	.59	.59	.59																
	*112*087*062*036*010	935	*112*087*062*036*010	935	*112*087*062*036*010	935	*112*087*062*036*010	956	*32	911	891	874	859	847	831	H4	832	834	839	847	831	H4	832	834	839															
45	.90	.89	.87	.86	.84	.82	*219*203*184*164*143*120	.80	.78	.76	.74	.72	.70	.67	.66	.64	.62	.61	.60	.59	.54	.56	.58	.59																
	*095*070*044*018	993	*095*070*044*018	993	*095*070*044*018	993	*095*070*044*018	993	*33	915	894	874	858	843	832	823	H2	819	822	828	832	823	H2	819	822	828														
1300	.89	.88	.86	.84	.82	.80	*202*184*165*145*122*099	.78	.76	.74	.72	.70	.68	.66	.64	.62	.61	.60	.59	.58	.57	.57	.57	.57																
	*074*048*022	995	*074*048*022	995	*074*048*022	995	*074*048*022	915	*43	872	853	837	823	813	803	H2	802	805	812	813	803	H2	802	805	812															
15	.87	.86	.84	.82	.81	.79	*179*161*141*120*097*073	.76	.74	.72	.70	.68	.66	.64	.62	.60	.59	.58	.57	.56	.55	.55	.55	.56																
	*047*021	995	*047*021	995	*047*021	995	*047*021	983	*42	917	886	865	845	827	811	798	789	782	773	780	784	791	789	782	773	780	784	791												
30	.85	.84	.82	.80	.78	.76	*152*133*113*091*067*042	.74	.72	.70	.68	.66	.64	.61	.60	.58	.57	.56	.55	.54	.53	.53	.54	.54																
	*016	990	*016	990	*016	990	*016	990	*32	937	910	885	856	834	814	796	781	769	760	754	752	753	758	766	760	754	752	753	758	766										
45	.83	.81	.80	.78	.76	.74	*120*101*080*057*033*007	.72	.69	.67	.65	.62	.61	.59	.57	.56	.54	.53	.52	.52	.51	.51	.51	.52																
	*981	954	*981	954	*981	954	*981	954	*32	927	900	874	849	823	798	778	761	747	735	727	722	723	728	736	727	722	723	728	736											

SEP-DEC 30 N TABLE B-1 SOLAR PARAMETERS COS Z = 1.
X0 (W/7*+2.) ADD 1000 TO VALUES PRECEDED BY .

... SIGNIFIES COS Z = 1.

MST	DATE										DATE									
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10
1400 *084+064+042+019 994 968	.80 .79 .77 .75 .73 .71	.69 .66 .64 .62 .60 .58	.941 913 886 859 833 808	.56 .54 .53 .51 .50 .50	.779 753 739 722 708 697	.49 .49 .48 .49 .49 .50	.689 685 683 687 687 693	.702												
15 *044+023+000 976 950 924	.77 .76 .74 .72 .70 .68	.65 .63 .61 .59 .57 .55	.896 869 841 814 788 763	.53 .51 .50 .48 .47 .47	.735 714 695 679 665 655	.46 .45 .45 .46 .46 .47	.648 644 644 647 654 664													
30 *74 .72 .70 .68 .66 .64	.62 .60 .57 .55 .53 .51	.848 820 792 765 739 714	.43 .48 .46 .45 .44 .43	.685 665 647 631 619 609	.43 .43 .43 .43 .43 .44	.603 603 603 604 611 622														
45 *71 .69 .67 .65 .63 .60	.58 .56 .54 .52 .50 .48	.796 768 739 712 686 661	.45 .44 .43 .41 .40 .40	.634 613 595 580 568 559	.39 .39 .39 .39 .40 .41	.553 551 552 557 565 576														
1500 899 875 851 824 797 769	.67 .65 .63 .61 .58 .56	.54 .52 .50 .47 .45 .44	.740 711 683 656 629 605	.41 .40 .39 .38 .37 .36	.578 558 540 526 514 506	.36 .35 .35 .36 .36 .37	.501 493 501 506 514 526													
15 843 819 793 767 738 710	.63 .61 .59 .56 .54 .52	.50 .47 .45 .43 .41 .39	.681 652 623 596 570 545	.37 .36 .34 .33 .33 .32	.519 499 482 468 457 449	.32 .31 .32 .32 .33 .33	.445 444 446 452 461 472													
30 784 759 733 706 677 648	.58 .56 .54 .52 .50 .47	.45 .43 .41 .39 .37 .35	.618 589 561 533 507 483	.32 .31 .30 .29 .28 .28	.456 437 421 407 397 390	.27 .27 .28 .28 .29 .29	.386 385 368 394 404 416													
45 722 697 670 642 612 583	.54 .52 .49 .47 .45 .43	.40 .38 .36 .34 .32 .30	.553 524 495 467 442 417	.23 .27 .26 .25 .24 .23	.392 373 357 344 334 328	.23 .23 .23 .24 .24 .25	.324 324 326 334 344 356													
1600 658 631 604 575 545 515	.49 .47 .45 .42 .40 .38	.35 .33 .31 .29 .27 .25	.485 456 427 399 373 350	.25 .22 .21 .20 .19 .19	.324 306 290 278 269 263	.18 .19 .19 .19 .20 .21	.260 261 264 271 281 294													
15 591 564 535 506 476 445	.44 .42 .40 .37 .35 .33	.30 .28 .26 .24 .22 .20	.415 385 356 329 303 280	.18 .17 .16 .15 .14 .14	.255 237 222 210 201 196	.14 .14 .14 .15 .15 .16	.193 195 195 199 206 217 230													
30 521 494 465 435 404 374	.39 .37 .34 .32 .30 .27	.25 .23 .21 .19 .17 .15	.343 313 284 257 231 208	.13 .12 .11 .10 .09 .09	.183 166 151 140 132 127	.125 125 131 139 150 163														
45 450 422 393 362 331 300	.33 .31 .29 .27 .24 .22	.20 .17 .15 .13 .11 .10	.269 239 210 183 157 134	.08 .07 .06 .05 .04 .04	.116 093 079 068 060 056	.04 .04 .04 .05 .06 .07	.055 057 062 070 081 094													

TABLE B-1 SOLAR PARAMETERS $\cos^2 \chi_{W/M=2.1}$
SEP-DEC 30 N ADD 1000 TO VALUES PRECEDED BY *

** SIGNIFIES $\cos^2 \chi = 1$.

MST	SEP					OCT					NOV					DEC					
	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	
1700	.28	.26	.24	.21	.19	.16	.14	.12	.10	.08	.06	.04	.03	.01	.00	.00	.00	.00	.01	.02	
	377	349	319	288	256	225	194	164	135	108	882	660	036	019	006	000	000	000	000	010	024
15	.23	.20	.18	.16	.13	.11	.09	.06	.04	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	304	274	244	212	180	149	118	867	58	31	006	060	003	000	000	000	000	000	000	000	
30	.17	.15	.12	.10	.08	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	229	199	168	136	104	072	041	010	000	000	000	000	000	000	000	000	000	000	000	000	
45	.11	.09	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	153	123	91	059	027	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
1800	.06	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	077	046	015	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	002	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	

SEP-DEC 30 N TABLE B-1 SOLAR PARAMETERS COS Z =¹
X0 (W/m**2.) ADD 1000 TO VALUES PRECEDED BY .
*** SIGNIFIES COS Z =¹.

MST	1	5	10	15	20	25	30	DATE						APR										
								FEB	5	10	15	20	25	MAR	5	10	15	20	25	30				
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00				
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000				
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00				
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000				
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02				
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	022				
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.04	.07				
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	027	053	076	098			
0600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.05	.08	.10	.13			
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	049	077	104	129	152	173		
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.11	.13	.15	.17	.18		
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	127	155	182	206	229	249	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.17	.19	.21	.23	.24		
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	206	233	259	283	304	324	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.07	.09	.12	.14	.16	.18		
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	102	131	160	190	220	249	
0700	.02	.01	.01	.01	.01	.02	.03	.04	.05	.07	.08	.10	.13	.15	.17	.19	.22	.24	.26	.28	.30	.34	.35	
	021	017	015	016	020	027	037	054	071	091	113	138	181	209	239	268	298	327	360	385	411	433	453	471
15	.07	.06	.06	.06	.07	.07	.08	.09	.11	.12	.14	.15	.19	.21	.23	.25	.27	.29	.32	.34	.35	.37	.40	
	093	089	088	089	094	102	113	130	148	168	191	215	258	267	316	346	375	403	436	461	485	507	526	543
30	.12	.11	.11	.12	.12	.13	.15	.16	.17	.19	.21	.24	.24	.26	.28	.31	.33	.35	.37	.39	.41	.43	.46	
	164	161	159	162	167	175	187	205	223	243	266	291	335	363	392	421	450	478	510	535	563	579	597	613
45	.16	.16	.16	.16	.17	.18	.18	.20	.21	.23	.24	.26	.29	.32	.34	.36	.38	.40	.43	.44	.46	.48	.51	
	233	230	229	232	238	247	259	278	296	317	341	366	404	437	466	495	523	551	582	606	628	649	666	682

JAN-APR 28 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.)

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

PREVIOUS PAGE
IS BLANK

MST	JAN					FEB					DATE					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30	
0800	.21	.21	.21	.21	.22	.22	.23	.25	.26	.28	.30	.31	.35	.37	.39	.41	.43	.45	.48	.50	.51	.53	.54	.55	
300	297	297	301	307	317	330	349	368	389	413	438	481	510	538	566	594	621	652	673	697	716	733	748		
15	.26	.26	.26	.26	.27	.27	.28	.30	.31	.33	.35	.36	.43	.47	.44	.46	.48	.50	.53	.54	.55	.58	.59	.60	
364	362	363	367	374	384	398	417	437	459	482	508	551	579	608	636	663	689	719	742	763	781	798	812		
30	.30	.30	.30	.30	.31	.32	.33	.34	.36	.38	.39	.41	.45	.47	.49	.51	.53	.55	.57	.59	.61	.62	.64	.65	
426	425	426	430	438	449	463	484	503	526	550	575	610	647	674	702	729	755	784	805	826	844	859	872		
45	.34	.34	.34	.35	.35	.36	.37	.39	.40	.42	.44	.46	.49	.51	.53	.55	.58	.60	.62	.64	.65	.67	.68	.69	
485	484	486	491	500	511	526	547	567	590	614	630	683	711	738	765	792	817	845	865	886	903	918	930		
0900	.38	.38	.38	.39	.40	.40	.42	.43	.45	.46	.48	.50	.54	.56	.58	.60	.62	.64	.66	.68	.69	.71	.72	.73	
541	540	543	549	558	570	585	607	628	651	675	701	744	772	799	826	851	876	903	924	942	959	973	984		
15	.42	.42	.42	.43	.43	.44	.46	.47	.49	.51	.52	.54	.58	.60	.62	.64	.66	.68	.70	.72	.73	.75	.76	.77	
593	593	596	603	613	626	641	664	685	708	733	759	802	826	856	882	907	931	958	977	995	1011	1024	1035		
30	.45	.45	.46	.46	.47	.48	.49	.51	.53	.54	.56	.58	.62	.64	.66	.68	.70	.72	.74	.75	.77	.78	.79	.80	
641	642	646	654	664	678	694	717	738	762	787	813	856	883	909	935	959	983	1008	1027	1044	1059	1072	1083		
45	.49	.49	.49	.50	.50	.51	.53	.54	.56	.58	.60	.62	.65	.67	.69	.71	.73	.75	.77	.79	.80	.81	.83	.83	
686	687	692	700	711	726	743	766	788	812	837	863	905	932	958	984	1008	1030	1055	1073	1090	1104	1116	1126		
1000	.51	.52	.52	.53	.53	.55	.56	.58	.59	.61	.63	.65	.66	.70	.73	.74	.76	.78	.80	.82	.83	.84	.85	.86	
727	729	734	743	755	770	787	811	834	858	883	909	951	978	1003	1028	1051	1073	1097	1115	1131	1144	1155	1165		
15	.54	.54	.55	.55	.56	.57	.59	.61	.62	.64	.66	.68	.71	.73	.75	.77	.79	.81	.83	.85	.86	.87	.88	.89	
763	766	772	782	794	810	828	852	875	899	924	950	993	1018	1044	1068	1091	1112	1135	1152	1167	1180	1191	1199		
30	.56	.56	.57	.58	.59	.60	.61	.63	.65	.67	.69	.71	.74	.76	.78	.80	.82	.84	.85	.87	.88	.89	.90	.91	
795	798	805	816	829	845	864	889	912	936	962	987	1029	1055	1080	1103	1126	1146	1169	1185	1199	1211	1222	1230		
45	.58	.58	.59	.60	.61	.62	.64	.65	.67	.69	.71	.73	.76	.78	.80	.82	.84	.86	.88	.89	.90	.91	.92	.93	
823	827	834	845	859	876	895	921	944	969	994	1020	1061	1087	1111	1134	1156	1176	1197	213	227	238	248	255		

JAN-APR 28 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.) *** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	DATE										APR													
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30					
1100	.60	.60	.61	.62	.63	.64	.65	.67	.69	.71	.73	.75	.78	.60	.82	.84	.86	.87	.89	.91	.32	.93	.94	.95
	846	850	859	870	885	902	922	948	971	996	022	047	*08S	113	137	160	181	200	*221	235	249	260	269	276
15	.61	.61	.62	.63	.64	.65	.67	.69	.71	.73	.75	.77	*80	.82	.84	.86	.87	.89	*91	.92	.93	.94	.95	.96
	864	869	878	890	906	923	944	970	994	019	044	070	*111	.135	.159	.181	201	220	*240	254	267	277	286	293
30	.62	.62	.63	.64	.65	.67	.68	.70	.72	.74	.76	.78	*81	.83	.85	.87	.88	.90	*92	.93	.94	.95	.96	.97
	877	883	893	906	922	940	961	988	012	037	062	058	*12E	.152	.175	.196	.216	.234	*254	263	279	289	298	304
45	.63	.63	.64	.65	.66	.67	.69	.71	.73	.75	.77	.79	*82	.84	.86	.87	.89	.91	*92	.94	.95	.96	.97	
	886	892	903	916	933	952	973	*000	*024	*049	*075	*100	*140	.163	.186	*207	*226	*244	*262	276	287	297	304	*310
1200	.63	.63	.64	.65	.66	.68	.69	.72	.73	.75	.77	.79	*82	.84	.86	.88	.89	.91	*93	.94	.95	.96	.97	.97
	889	896	907	922	939	958	979	*007	*032	*057	*082	*107	*147	.170	.192	.212	.231	.248	*266	273	290	299	306	*312
15	.63	.63	.64	.65	.67	.68	.70	.72	.74	.76	.77	.79	*83	.84	.86	.88	.89	.91	*92	.94	.95	.96	.96	.97
	888	895	907	922	940	960	981	*009	*034	*059	*084	*109	*148	.171	.193	.213	.231	.247	*264	277	287	296	303	*308
30	.62	.63	.64	.65	.66	.68	.69	.72	.73	.75	.77	.79	*82	.84	.86	.88	.89	.90	*92	.93	.94	.95	.96	.96
	882	890	902	918	936	956	978	*006	*031	*056	*081	*106	*145	.167	.188	.207	.225	.241	*258	273	280	288	295	*300
45	.62	.62	.63	.64	.66	.67	.69	.71	.73	.75	.77	.79	*82	.83	.85	.87	.88	.90	*91	.92	.93	.94	.95	.95
	871	879	892	908	927	948	970	*998	*023	*048	*073	*078	*136	.158	.178	.197	.214	.230	*246	257	257	275	282	*287
1300	.60	.61	.62	.63	.65	.66	.68	.70	.72	.74	.76	.78	*81	.82	.84	.86	.87	.88	*90	.91	.92	.93	.93	.94
	855	864	877	894	913	934	957	*985	*010	*035	*060	*084	*122	.143	.163	.182	.199	.213	*229	245	249	257	264	*269
15	.59	.60	.61	.62	.63	.65	.67	.69	.71	.73	.74	.76	*78	.81	.83	.84	.86	.87	*88	.89	.90	.91	.92	.92
	834	843	858	875	894	915	938	967	992	017	042	066	*102	.124	.143	.161	.178	.192	*207	213	227	234	241	*246
30	.57	.58	.59	.60	.62	.63	.65	.67	.69	.71	.73	.75	*78	.79	.81	.82	.84	.85	*86	.87	.88	.89	.90	.90
	808	818	833	851	871	892	915	944	969	994	018	042	*078	.099	.118	.136	.152	.166	*180	.191	.200	.207	.213	*218
45	.55	.56	.57	.58	.60	.61	.63	.65	.67	.69	.71	.73	*75	.77	.79	.80	.81	.83	*84	.85	.86	.87	.87	.88
	778	789	804	822	842	864	887	916	941	966	950	014	*049	.070	.088	.105	.121	.135	*149	.153	.159	.175	.181	*186

JAN-APR 28 N TABLE B-1

SOLAR PARAMETERS COS Z =1
X0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY -*** SIGNIFIES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY -

MST	JAN					FEB					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1400	.53	.53	.54	.56	.57	.59	.61	.63	.65	.67	.68	.70	.73	.75	.76	.78	.79	.80	.81	.82
	744	755	770	789	809	831	855	884	908	933	957	980	*015	035	054	070	085	099	-113	123
15	.50	.51	.52	.53	.55	.56	.58	.60	.62	.64	.66	.67	.70	.72	.73	.75	.76	.77	.78	.79
	705	716	733	751	772	794	818	847	871	895	919	942	977	996	014	031	045	058	-072	082
30	.47	.48	.49	.50	.52	.53	.55	.57	.59	.61	.63	.64	.67	.69	.70	.71	.73	.74	.75	.76
	662	674	690	709	730	753	776	805	829	854	877	900	934	953	970	986	001	014	.027	.037
45	.44	.44	.46	.47	.48	.50	.52	.54	.56	.58	.59	.61	.64	.65	.67	.68	.69	.70	.72	.73
	615	627	644	663	684	707	730	759	783	807	831	853	886	905	922	938	952	965	978	987
1500	.40	.41	.42	.43	.45	.47	.48	.50	.52	.54	.56	.57	.60	.62	.63	.64	.65	.66	.68	.69
	565	577	594	614	635	657	681	709	733	757	780	802	835	853	870	886	899	912	925	934
15	.36	.37	.38	.40	.41	.43	.45	.47	.48	.50	.52	.54	.56	.57	.59	.60	.61	.62	.63	.64
	510	523	540	560	581	604	627	656	680	703	726	747	779	797	814	829	843	855	868	873
30	.32	.33	.34	.36	.37	.39	.40	.43	.44	.46	.48	.49	.52	.53	.55	.56	.57	.58	.59	.60
	453	466	483	503	524	547	570	598	622	645	667	689	720	738	754	769	783	795	808	813
45	.28	.29	.30	.31	.33	.35	.36	.38	.40	.42	.43	.45	.47	.49	.50	.51	.52	.53	.54	.55
	392	405	423	443	464	487	510	538	561	584	606	627	658	675	691	706	719	732	745	754
1600	.23	.24	.25	.27	.28	.30	.32	.34	.35	.37	.39	.40	.43	.44	.45	.46	.47	.49	.50	.51
	329	342	360	380	401	423	446	474	497	520	541	562	592	610	625	640	653	665	678	683
15	.19	.20	.21	.22	.24	.25	.27	.29	.31	.32	.34	.35	.38	.39	.40	.41	.42	.43	.45	.46
	263	276	294	314	335	357	380	408	430	452	474	494	524	541	557	571	584	596	609	620
30	.14	.15	.16	.17	.19	.21	.22	.24	.26	.27	.29	.30	.33	.34	.35	.36	.37	.38	.39	.40
	195	208	226	246	267	289	311	338	361	383	403	423	453	470	485	499	513	525	538	549
45	.09	.10	.11	.12	.14	.16	.17	.19	.21	.22	.24	.25	.27	.29	.30	.31	.32	.33	.34	.35
	125	138	156	176	197	218	241	267	289	310	331	351	380	396	412	426	439	451	465	475

TABLE B-1 SOLAR PARAMETERS

COS Z
X0 (W/MM**2.)*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

WST	1	5	10	15	20	25	30	DATE						APR										
								5	10	15	20	25	30	5	10	15	20	25	30					
1700	.04	.05	.06	.07	.09	.10	.12	.14	.15	.17	.18	.20	.22	.23	.24	.25	.26	.27	.29	.29	.30	.31	.32	.33
	.054	.067	.085	.104	.125	.146	.168	.194	.215	.236	.257	.276	.305	.321	.336	.350	.364	.376	.390	.401	.412	.422	.433	.443
15	.00	.00	.01	.02	.04	.05	.07	.09	.10	.12	.13	.14	.16	.18	.19	.20	.21	.22	.23	.24	.25	.26	.27	.27
	.000	.000	.011	.031	.051	.072	.093	.119	.140	.161	.181	.200	.223	.244	.259	.273	.287	.299	.314	.325	.336	.347	.358	.369
30	.00	.00	.00	.00	.00	.00	.01	.03	.05	.06	.07	.09	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	.21	.22
	.000	.000	.000	.000	.000	.000	.018	.043	.064	.084	.103	.122	.150	.166	.181	.195	.209	.221	.236	.243	.250	.271	.283	.294
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.03	.05	.06	.07	.08	.09	.10	.12	.13	.13	.14	.15	.16
	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.025	.043	.071	.087	.102	.116	.130	.143	.158	.170	.183	.195	.207	.219

JAN-APR 28 N TABLE B-1 SOLAR PARAMETERS COS² ^{*1}
^{*1} ADD 1000 TO VALUES PRECEDED BY .
² (W/M²*2.)

NST	MAY					JUN					JUL					AUG							
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30	
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
0600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
15	.00	.00	.01	.02	.02	.03	.03	.02	.02	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
30	.03	.04	.06	.06	.07	.08	.08	.08	.07	.07	.06	.05	.05	.04	.03	.02	.01	.02	.00	.00	.00		
45	.09	.10	.11	.12	.13	.13	.13	.13	.13	.13	.11	.11	.10	.09	.08	.07	.06	.05	.04	.03	.02		
117	133	147	158	166	172	176	175	171	166	159	151	141	131	120	108	996	882	873	858	846	834	822	
0600	.14	.15	.16	.17	.18	.18	.19	.19	.18	.18	.17	.17	.16	.15	.14	.13	.12	.11	.10	.09	.07		
191	207	220	230	238	243	247	247	245	241	236	229	221	212	202	192	180	169	155	144	132	121	110	099
15	.20	.21	.22	.23	.23	.24	.24	.24	.24	.23	.23	.22	.21	.21	.20	.19	.18	.17	.15	.15	.14	.13	
266	281	293	303	310	315	318	317	315	312	306	300	292	283	273	263	253	242	229	213	207	196	186	176
30	.25	.26	.27	.28	.29	.29	.29	.29	.29	.28	.28	.27	.27	.26	.25	.24	.23	.22	.21	.20	.19		
340	355	366	375	382	386	388	388	386	382	376	370	362	353	344	335	325	314	302	292	282	272	262	252
45	.31	.32	.33	.33	.34	.34	.35	.35	.34	.34	.33	.33	.32	.31	.30	.29	.28	.27	.27	.26	.25	.24	
414	427	438	447	453	456	458	458	457	455	451	439	432	424	415	405	396	386	375	363	356	346	337	327
0700	.36	.37	.38	.39	.39	.40	.40	.40	.40	.39	.38	.38	.37	.37	.36	.35	.34	.33	.32	.31	.31	.30	
486	499	509	517	523	526	527	526	524	520	514	508	501	493	484	476	467	458	447	433	423	420	411	402
15	.41	.42	.43	.44	.44	.45	.45	.45	.44	.44	.43	.42	.42	.41	.40	.40	.39	.35	.39	.37	.36	.35	
558	570	579	586	591	594	595	594	591	587	575	563	561	553	545	536	528	517	503	501	492	484	476	
30	.47	.48	.48	.49	.49	.50	.50	.50	.50	.49	.49	.48	.47	.47	.46	.46	.44	.43	.43	.42	.41	.41	
627	639	647	654	658	661	661	660	657	653	648	642	635	628	620	612	604	596	587	573	571	563	555	547
45	.52	.53	.53	.54	.54	.55	.55	.55	.54	.54	.53	.53	.52	.52	.51	.51	.50	.49	.49	.48	.47	.46	
695	705	714	720	724	726	726	724	721	717	712	706	700	693	686	678	671	663	655	647	640	633	625	617

MAY-AUG 28 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.) *** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

PREVIOUS PAGE
IS BLANK

C

MST	MAY					JUN					JUL					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
0000	.57	.57	.58	.59	.59	.59	.59	.59	.59	.58	.58	.58	.58	.57	.57	.55	.54	.54	.52	.51				
0000	760	770	778	783	787	788	788	786	783	779	774	769	762	756	749	742	735	729	720	713	706	700	692	685
15	.61	.62	.63	.63	.64	.64	.64	.64	.64	.63	.63	.63	.62	.62	.61	.61	.60	.60	.59	.58	.57	.57	.56	.56
15	823	832	839	844	847	849	848	846	843	839	834	829	823	817	811	804	798	791	784	777	771	764	757	750
30	.66	.66	.67	.67	.68	.68	.68	.68	.68	.67	.67	.67	.66	.66	.65	.65	.64	.63	.63	.62	.62	.61	.60	.60
30	883	892	898	903	905	906	905	903	900	896	892	887	881	875	859	864	858	852	844	833	832	826	820	813
45	.70	.71	.71	.72	.72	.72	.72	.72	.72	.72	.72	.71	.71	.70	.70	.69	.69	.68	.68	.67	.67	.66	.66	.65
45	940	948	954	958	960	961	960	958	955	951	946	942	936	931	926	920	915	909	902	897	891	885	879	872
0300	.74	.75	.75	.76	.76	.76	.76	.76	.76	.75	.75	.75	.75	.74	.74	.73	.73	.73	.72	.71	.71	.70	.70	.69
0300	994	001	007	010	012	013	011	009	006	002	998	994	989	984	979	974	969	964	957	952	947	941	935	928
15	.78	.78	.79	.79	.80	.80	.80	.80	.80	.79	.79	.79	.78	.78	.77	.77	.76	.76	.75	.75	.74	.74	.73	.73
15	044	051	056	059	061	061	060	057	054	051	047	042	*038	033	029	024	019	015	*009	001	533	533	533	531
30	.81	.82	.82	.83	.83	.83	.83	.83	.83	.82	.82	.82	.82	.82	.81	.81	.80	.80	.79	.73	.78	.77	.77	.77
30	091	097	102	104	106	106	104	102	099	096	092	088	*084	079	075	071	067	062	*057	052	048	042	036	030
45	.84	.85	.85	.86	.86	.86	.86	.86	.86	.86	.86	.85	.85	.85	.84	.84	.83	.83	.82	.82	.81	.81	.80	.80
45	133	139	143	146	147	147	145	143	140	137	133	130	*126	122	118	114	110	106	*101	097	092	087	081	074
1000	.87	.88	.88	.89	.89	.89	.89	.89	.89	.88	.88	.88	.88	.88	.87	.87	.86	.86	.85	.84	.84	.83	.83	.83
1000	172	177	181	183	184	184	182	180	177	174	171	168	*164	161	157	154	150	146	*142	139	133	128	122	115
15	.90	.90	.91	.91	.91	.91	.91	.91	.91	.91	.91	.91	.91	.90	.90	.89	.89	.89	.89	.88	.87	.86	.86	.86
15	206	211	214	216	217	217	215	213	211	208	205	202	*199	195	192	189	186	183	*178	174	170	164	158	151
30	.92	.92	.93	.93	.93	.94	.94	.94	.93	.93	.93	.93	.93	.93	.92	.92	.92	.91	.91	.90	.89	.89	.88	.88
30	236	241	244	245	246	245	244	242	240	237	234	232	*229	226	223	220	218	214	*210	205	202	197	190	183
45	.94	.94	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.94	.94	.94	.94	.93	.93	.92	.91	.90	.90
45	261	266	268	270	270	270	268	267	265	262	260	257	*255	253	250	248	245	242	*238	234	230	224	218	210

MAY-AUG 28 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.) *** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY +

NST	MAY					JUN					JUL					AUG					
	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25
1100	.95	.96	.97	.97	.97	.97	.97	.97	.97	.97	.96	.96	.96	.96	.95	.95	.94	.94	.93	.93	.92
	*282*286*288*290*290		*288*287*285*283*281*279								*277*275*272*270*268*265						*261*257*253*247*241*233				
15	.96	.97	.97	.98	.98	.98	.98	.98	.98	.98	.98	.98	.97	.97	.97	.96	.95	.95	.94	.94	.93
	*298*301*304*305*305		*304*303*301*299*293*296								*294*292*290*288*286*284						*280*275*271*266*259*251				
30	.97	.98	.98	.98	.99	.99	.99	.99	.99	.99	.99	.98	.98	.98	.98	.97	.97	.96	.96	.95	.94
	*309*312*315*316*316		*315*314*313*311*310*308								*307*305*304*302*300*297						*294*293*285*279*272*263				
45	.98	.98	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.98	.98	.97	.97	.96	.95
	*315*318*320*322*322		*321*321*320*318*317*316								*315*314*312*311*309*307						*303*299*294*288*280*271				
1200	.98	.98	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.98	.94	.97	.97	.96
	*316*320*322*323*324*324		*323*323*322*321*320*320								*319*318*317*315*313*311						*307*303*299*291*283*274				
15	.98	.98	.98	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.98	.93	.97	.96	.95
	*313*316*318*319*320		*320*320*320*319*319*318								*318*317*316*315*313*311						*307*302*297*290*281*272				
30	.97	.97	.98	.98	.98	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.98	.97	.97	.96	.95
	*304*307*310*311*312*313		*313*313*313*313*313*312								*312*312*311*310*308*306						*301*297*291*284*275*264				
45	.96	.96	.97	.97	.98	.98	.98	.98	.98	.98	.98	.98	.98	.98	.98	.98	.97	.97	.95	.94	.93
	*291*294*296*298*300		*301*301*301*302*302*302								*302*302*302*301*300*298*296						*291*285*285*272*263*252				
1300	.95	.95	.95	.96	.96	.96	.97	.97	.97	.97	.97	.97	.97	.97	.97	.97	.96	.95	.95	.94	.93
	*273*276*279*280*282*283		*284*285*286*286*287*287								*287*287*287*286*284*281						*277*271*265*256*247*235				
15	.93	.93	.94	.94	.94	.95	.95	.95	.96	.96	.96	.96	.96	.96	.96	.95	.95	.94	.93	.92	.91
	*250*253*256*258*260*261		*263*264*265*266*267*268								*268*266*267*265*262						*257*252*244*236*225*213				
30	.91	.91	.92	.92	.93	.93	.93	.93	.93	.94	.94	.94	.94	.94	.94	.93	.93	.92	.91	.89	.88
	*223*226*229*232*234*235		*237*239*240*242*243*244								*245*245*244*243*241*238						*233*227*220*210*199*186				
45	.89	.89	.89	.90	.90	.91	.91	.91	.92	.92	.92	.92	.92	.91	.91	.92	.91	.91	.90	.88	.87
	*191*195*198*200*203*205		*208*210*211*213*215*216								*217*217*217*216*214*210						*205*193*190*180*180*188*155				

TABLE B-1 SOLAR PARAMETERS CCS 2
X0 (W/M**2.) * SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MAY-AUG 28 N

MST	MAY					JUN					DATE					JUL					AUG				
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30			
1400	.86	.87	.87	.88	.88	.88	.89	.89	.89	.89	.90	.89	.89	.89	.89	.88	.87	.87	.86	.85	.83				
	*155*159*162*165*168*171					*174*176*178*180*182*184					*185*185*185*184*181*178					*172*165*156*146*133*119									
15	.83	.83	.84	.84	.85	.85	.86	.86	.87	.87	.87	.87	.87	.86	.86	.85	.85	.84	.83	.82	.80				
	*114*118*122*126*129*132					*136*139*141*144*146*147					*149*149*149*147*145*141					*135*127*118*107*094*078									
30	.80	.80	.81	.81	.82	.82	.83	.83	.83	.84	.84	.84	.84	.83	.83	.82	.81	.81	.80	.78	.77				
	*070*074*079*083*086*090					*094*097*100*103*105*107					*103*109*109*107*105*101					*093*063*075*064*050*034									
45	.76	.76	.77	.78	.78	.78	.79	.79	.80	.80	.80	.80	.80	.80	.80	.79	.73	.77	.76	.75	.73				
	*021*026*031*036*040*044					*048*052*056*059*061*063					*065*065*064*061*056					*048*043*023*017*002									
1500	.72	.73	.73	.74	.74	.75	.75	.76	.76	.77	.77	.77	.77	.77	.76	.75	.74	.73	.72	.71	.69				
	969 975 980 985 990 994					*000*004*007*011*014*016					*016*018*018*016*013*008					*000 991 979 966 951 933									
15	.68	.69	.69	.70	.70	.71	.71	.72	.72	.73	.73	.73	.73	.73	.72	.71	.70	.69	.68	.67	.65				
	914 920 926 931 936 942					947 952 956 960 963 966					967 968 967 965 962 956					947 933 926 912 896 877									
30	.64	.64	.65	.65	.66	.67	.67	.68	.68	.68	.69	.69	.69	.69	.68	.67	.65	.65	.64	.62	.61				
	856 862 868 874 880 886					892 897 902 906 909 912					914 913 911 907 901					892 882 869 854 837 818									
45	.59	.60	.60	.61	.62	.62	.63	.63	.64	.64	.64	.65	.65	.64	.64	.63	.62	.61	.59	.58	.56				
	794 801 808 814 821 827					834 840 845 849 853 855					857 857 857 854 850 843					833 822 809 794 776 756									
1600	.54	.55	.56	.56	.57	.58	.58	.59	.59	.60	.60	.60	.60	.60	.59	.60	.60	.60	.60	.59	.58				
	730 738 745 752 759 766					774 779 785 789 793 796					793 798 797 794 790 783					772 763 747 730 712 691									
15	.49	.50	.51	.51	.52	.53	.54	.54	.55	.55	.55	.56	.56	.56	.55	.55	.54	.53	.52	.51	.50	.48			
	664 672 680 687 695 702					711 717 723 728 732 735					736 737 735 732 727 720					708 696 631 664 645 624									
30	.44	.45	.46	.46	.47	.48	.49	.49	.50	.50	.51	.51	.51	.51	.50	.50	.49	.48	.47	.46	.45	.43			
	595 604 612 621 629 637					646 653 659 664 668 671					673 673 671 668 662 654					642 623 614 596 576 554									
45	.39	.40	.41	.42	.43	.44	.44	.45	.45	.46	.46	.46	.46	.46	.45	.44	.46	.46	.45	.44	.43	.42			
	525 534 543 552 561 570					579 586 593 598 603 606					607 607 605 601 595 587					574 560 544 526 505 482									

MAY-AUG 28 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.) *** SIGNIFIES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					DATE					AUG						
	5	10	15	20	30	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30
1700	.34	.35	.36	.37	.38	.38	.39	.40	.40	.41	.41	.41	.40	.40	.39	.38	.37	.35	.34	.32	.30	
453	463	473	482	492	501	511	519	525	531	536	539	540	540	538	533	527	518	504	495	473	454	433
15	.28	.29	.30	.31	.32	.32	.33	.34	.35	.35	.36	.36	.36	.35	.35	.34	.33	.31	.30	.29	.27	.25
380	391	401	411	421	431	442	450	457	463	467	470	472	471	469	464	457	448	433	419	401	381	359
30	.23	.24	.25	.25	.26	.27	.28	.29	.29	.30	.30	.30	.30	.30	.30	.28	.27	.25	.23	.21	.19	
306	317	329	340	350	360	372	380	387	393	398	401	402	402	399	394	386	376	361	345	327	307	284
45	.17	.18	.19	.20	.21	.22	.23	.23	.24	.25	.25	.25	.25	.25	.24	.23	.22	.20	.19	.17	.16	.14
231	243	255	267	278	289	301	310	317	324	328	331	332	332	328	323	315	304	288	272	253	232	208
1800	.12	.13	.14	.15	.16	.16	.17	.18	.19	.19	.20	.20	.20	.20	.19	.18	.17	.16	.15	.13	.12	.09
157	169	182	194	206	218	230	239	247	253	258	261	262	261	257	251	243	232	215	193	179	157	132
15	.06	.07	.08	.09	.10	.11	.12	.13	.13	.14	.14	.14	.14	.14	.14	.13	.12	.11	.03	.08	.06	.04
082	095	109	122	134	146	159	168	177	183	188	191	192	190	186	180	171	159	142	124	104	081	056
30	.01	.02	.03	.04	.05	.06	.07	.07	.08	.09	.09	.09	.09	.09	.08	.07	.07	.05	.04	.02	.00	.00
45	.00	.00	.00	.00	.00	.005	.086	.098	.106	.113	.118	.121	.121	.120	.115	.108	.099	.087	.068	.053	.029	.006
000	000	000	000	000	000	018	028	037	044	049	051	052	049	045	037	027	015	000	000	000	000	000

MAY-AUG 20 N TABLE B-1 SOLAR PARAMETERS $\cos^2 Z = 1$
 $x_0 (w/m**2.)$ ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					NOV					DEC				
	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0600	.06	.06	.05	.04	.03	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
086	075	064	052	040	028	.014	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
15	.12	.11	.11	.10	.09	.08	.07	.06	.05	.03	.02	.C1	.00	.00	.00	.00	.00	.00	.00	.00
163	153	142	131	119	106	.093	.079	.063	.047	.029	.011	.000	.000	.000	.000	.000	.000	.000	.000	.000
30	.18	.17	.16	.15	.14	.14	.13	.11	.10	.09	.08	.06	.05	.03	.02	.00	.00	.00	.00	.00
240	230	219	208	197	184	171	157	141	124	106	.058	.064	.044	.023	.002	.000	.000	.000	.000	.000
45	.23	.23	.22	.21	.20	.19	.18	.17	.16	.15	.13	.12	.10	.09	.07	.06	.04	.03	.01	.00
316	306	296	286	274	262	248	234	218	201	183	164	140	119	.099	.077	.056	.036	.018	.003	.000
0700	.29	.28	.27	.27	.26	.25	.24	.23	.21	.20	.19	.17	.15	.14	.12	.11	.09	.08	.06	.05
391	382	372	361	350	338	324	309	293	276	258	238	214	193	172	150	129	109	.090	.073	.057
15	.35	.34	.33	.32	.31	.30	.29	.28	.27	.25	.24	.22	.21	.19	.17	.16	.14	.13	.12	.10
465	456	446	436	424	412	396	383	367	350	331	311	286	265	243	222	201	181	.162	.144	.129
30	.40	.39	.38	.37	.37	.35	.34	.33	.32	.31	.29	.28	.26	.24	.22	.21	.19	.18	.16	.15
537	528	519	508	497	485	471	456	439	421	402	382	357	335	313	292	271	250	.231	.214	.198
45	.45	.44	.44	.43	.42	.41	.39	.38	.37	.36	.34	.32	.31	.28	.27	.26	.24	.23	.21	.20
608	599	589	579	568	555	541	526	509	491	471	451	425	403	381	359	338	318	.299	.281	.253

TABLE B-1 SOLAR PARAMETERS COS Z
X0 (W/M²*2.) SEP-DEC 28 N

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

PREVIOUS PAGE
IS BLANK

MST	SEP					OCT					NOV					DEC								
	5	10	15	20	30	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30		
0800	.50	.49	.49	.48	.47	.46	.44	.43	.42	.40	.39	.37	.35	.34	.32	.30	.29	.27	.26	.25	.23	.22	.21	
	676	667	658	647	636	623	609	593	576	557	538	517	491	469	447	424	403	383	364	341	319	309	302	
15	.55	.54	.53	.52	.51	.50	.49	.48	.46	.45	.43	.42	.40	.38	.36	.35	.33	.32	.30	.28	.27	.26	.26	
	741	732	723	713	701	688	673	657	640	621	601	580	554	531	509	487	465	445	426	407	382	373	366	
30	.60	.59	.58	.57	.56	.55	.54	.52	.51	.49	.48	.46	.44	.42	.41	.39	.37	.36	.34	.33	.32	.31	.30	
	804	795	786	775	763	750	735	719	701	682	662	640	614	591	568	546	525	504	486	463	455	443	434	428
45	.64	.63	.62	.61	.60	.59	.58	.57	.55	.54	.52	.50	.47	.46	.45	.43	.41	.40	.38	.37	.36	.35	.34	
	863	854	845	834	822	808	793	777	759	739	719	697	670	647	625	602	581	561	542	523	512	500	492	486
0900	.68	.67	.66	.66	.64	.63	.62	.60	.59	.57	.56	.54	.52	.50	.48	.47	.45	.44	.42	.41	.40	.39	.38	
	919	911	901	890	877	864	848	831	813	793	772	750	723	700	677	655	633	613	595	573	555	546	542	
15	.72	.71	.70	.69	.68	.67	.66	.64	.63	.61	.59	.58	.55	.54	.52	.50	.49	.47	.46	.45	.44	.43	.42	
	972	963	953	942	929	915	899	882	863	843	821	799	772	749	726	704	682	663	645	623	616	605	598	594
30	.76	.75	.74	.73	.72	.70	.69	.68	.66	.64	.63	.61	.59	.57	.55	.53	.52	.50	.49	.43	.47	.46	.45	
	*020	*011	*001	990	977	952	946	928	909	888	867	844	817	794	771	748	727	708	690	675	662	652	645	642
45	.79	.78	.77	.76	.75	.74	.72	.71	.69	.67	.66	.64	.62	.60	.58	.56	.55	.53	.52	.51	.50	.49	.49	
	*065	*056	*045	*034	*020	*005	988	970	951	930	908	885	857	834	811	789	768	749	732	717	704	695	689	686
1000	.82	.81	.80	.79	.78	.76	.75	.73	.72	.70	.68	.66	.64	.62	.61	.59	.57	.56	.55	.53	.52	.52	.51	
	*105	*996	*985	*973	*959	*944	*027	*008	988	967	945	922	894	870	847	825	805	786	769	755	743	734	729	727
15	.85	.84	.83	.82	.80	.79	.77	.76	.74	.72	.70	.69	.66	.65	.63	.61	.60	.58	.57	.55	.54	.54	.54	
	*141	*132	*121	*108	*094	*078	*060	*041	*021	999	977	953	925	902	879	857	837	818	802	783	777	769	764	763
30	.87	.86	.85	.84	.82	.81	.79	.78	.76	.74	.72	.71	.68	.67	.65	.63	.62	.60	.59	.53	.57	.56	.56	
	*173	*163	*151	*138	*123	*107	*089	*069	*049	*027	*004	981	952	929	906	885	865	846	830	817	807	799	795	794
45	.89	.88	.87	.86	.84	.83	.81	.80	.78	.76	.74	.72	.70	.68	.66	.65	.63	.62	.61	.60	.59	.58	.58	
	*200	*189	*177	*164	*148	*131	*113	*093	*072	*049	*026	*003	974	951	929	907	887	870	854	841	832	825	822	822

SEP-DEC 28 N

TABLE B-1

SOLAR PARAMETERS COS Z_{x0} (W/M²*2.)*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	DATE										DEC									
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10
1100 .91 .90 .88 .87 .86 .84 +222*211*198*184*168*151	.83 .81 .79 .77 .75 .73 *132*111*090*067*044*020	.71 .69 .68 .66 .64 .63 992 968 946 925 906 888	.62 .61 .60 .60 .60 .60 873 861 852 846 843 844																	
15 .92 .91 .90 .88 .87 .85 +239*227*214*200*183*165	.84 .82 .80 .78 .76 .74 *146*125*103*080*056*032	.72 .70 .68 .67 .65 .64 *004 961 959 938 919 902	.63 .62 .61 .61 .61 .61 888 875 856 862 860 862																	
30 .93 .92 .90 .89 .88 .86 +251*239*225*210*193*175	.84 .82 .81 .79 .77 .75 *154*133*111*087*063*040	.73 .71 .69 .67 .66 .65 *011 988 966 946 927 911	.64 .63 .62 .62 .62 .62 897 885 873 874 873 875																	
45 .93 .92 .91 .89 .88 .86 +258*246*231*215*198*179	.85 .83 .81 .79 .77 .75 *158*136*113*090*066*042	.73 .71 .69 .68 .66 .65 *013 990 969 949 930 915	.64 .63 .62 .62 .62 .62 901 891 884 880 880 883																	
1200 .94 .92 .91 .89 .88 .86 +260*247*232*216*197*178	.84 .83 .81 .79 .77 .75 *156*134*111*087*063*039	.72 .71 .69 .67 .66 .65 *010 988 965 946 929 914	.64 .63 .62 .62 .62 .63 901 891 882 883 886 886																	
15 .93 .92 .91 .89 .87 .86 +257*244*228*211*192*171	.84 .82 .80 .78 .76 .74 *150*127*103*079*055*030	.72 .70 .69 .67 .66 .64 *002 980 959 939 922 907	.64 .63 .62 .62 .62 .63 896 887 861 879 880 885																	
30 .93 .91 .90 .88 .87 .85 +249*235*219*201*181*160	.83 .81 .79 .77 .75 .73 *138*115*091*066*042*017	.71 .69 .68 .66 .65 .64 989 967 946 927 911 897	.63 .62 .62 .62 .62 .62 885 877 872 871 873 878																	
45 .92 .90 .89 .87 .86 .84 +236*221*204*186*165*144	.82 .80 .78 .76 .74 .72 *121*097*073*048*023 959	.70 .68 .66 .65 .64 .63 971 949 929 910 894 881	.62 .61 .61 .61 .61 .61 870 863 859 858 861 867																	
1300 .90 .89 .87 .86 .84 .82 +218*202*185*166*145*122	.80 .78 .76 .74 .72 .70 *099*075*050*025*000 976	.68 .66 .65 .63 .62 .61 943 926 906 888 873 860	.60 .60 .59 .59 .60 .60 850 844 840 844 844 850																	
15 .89 .87 .86 .84 .82 .80 +195*179*161*140*119*096	.78 .76 .74 .72 .70 .68 *072*047*022 997 972 948	.66 .64 .63 .61 .60 .59 920 893 879 862 847 835	.59 .58 .58 .58 .58 .59 826 820 817 818 822 829																	
30 .87 .85 .84 .82 .80 .78 +168*150*131*111*068*065	.76 .74 .72 .70 .68 .56 *040*015 990 965 940 915	.64 .62 .61 .59 .58 .57 886 867 848 831 816 805	.57 .55 .55 .55 .56 .57 796 791 789 791 795 804																	
45 .84 .83 .81 .79 .77 .75 +135*117*098*076*053*029	.73 .71 .69 .67 .65 .63 *004 979 953 927 902 878	.61 .59 .58 .57 .56 .55 851 830 811 795 781 770	.54 .54 .54 .54 .54 .55 763 753 757 759 765 773																	

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

TABLE B-1 SOLAR PARAMETERS COS Z
X0 (W/M**2.)

MST	DATE					NOV					DEC				
	5	10	15	20	30	5	10	15	20	30	5	10	15	20	30
1400 .82 .80 .78 .76 .74 .72 *099+080+059+037+013 989	.70 .68 .66 .64 .62 .60 963 937 911 886 861 837	.58 .57 .55 .54 .53 .52 810 789 771 755 742 732	.55 .53 .52 .51 .50 .49 764 744 726 711 698 689	.48 .47 .46 .45 .44 .43 682 679 679 679 683 690	.51 .51 .51 .51 .52 .52 724 721 720 723 729 739										
15 .78 .77 .75 .73 .71 .69 *057+038+016 994 969 944	.67 .65 .63 .61 .59 .57 918 892 866 840 815 791	.51 .50 .48 .47 .46 .46 714 695 677 662 651 642	.45 .45 .45 .45 .45 .46 636 633 634 638 646 656	.42 .41 .42 .42 .42 .43 586 584 585 590 598 609											
30 .75 .73 .72 .70 .68 .66 *012 992 970 946 921 895	.63 .61 .59 .57 .55 .53 869 842 816 790 765 741	.47 .46 .45 .44 .43 .42 661 642 625 610 599 591	.42 .41 .42 .42 .42 .43 586 584 585 590 598 609												
45 .71 .70 .68 .66 .64 .62 963 941 919 894 869 842	.60 .57 .55 .53 .51 .49 816 789 762 736 711 667	.43 .42 .41 .40 .39 .38 604 585 569 555 544 537	.38 .38 .38 .38 .38 .39 532 531 533 539 547 559												
1500 .67 .66 .64 .62 .60 .58 909 888 864 839 813 786	.55 .53 .51 .49 .47 .45 759 731 704 678 653 630	.32 .38 .36 .35 .35 .34 544 525 509 496 486 479	.34 .34 .34 .34 .34 .35 475 475 477 483 492 504												
15 .63 .61 .59 .57 .55 .53 853 830 806 780 753 726	.51 .49 .47 .45 .43 .41 698 671 643 617 592 569	.32 .33 .32 .31 .30 .30 480 462 447 434 425 418	.29 .29 .30 .30 .30 .31 .32 415 415 418 425 434 447												
30 .59 .57 .55 .53 .51 .49 793 769 744 718 691 663	.46 .44 .42 .40 .38 .36 635 607 579 553 528 505	.30 .28 .27 .26 .26 .25 414 396 381 369 361 355	.25 .25 .25 .26 .26 .27 352 353 357 363 373 386												
45 .54 .52 .50 .48 .46 .44 730 705 680 653 625 597	.41 .39 .37 .35 .33 .32 568 540 513 486 462 439	.25 .24 .22 .21 .21 .21 345 328 314 302 294 289	.20 .20 .21 .21 .22 .23 287 285 283 282 299 310												
1600 .49 .47 .45 .43 .41 .39 664 639 612 585 556 528	.36 .34 .32 .30 .28 .27 499 471 443 417 392 370	.20 .18 .17 .17 .16 .16 275 258 244 233 225 220	.16 .16 .16 .17 .17 .18 219 220 225 233 243 257												
15 .44 .42 .40 .38 .36 .33 595 570 543 515 486 456	.31 .29 .27 .25 .23 .22 427 399 371 345 321 298	.15 .13 .12 .12 .11 .11 202 185 172 161 154 150	.11 .11 .11 .12 .12 .13 149 151 150 156 164 175												
30 .39 .37 .35 .33 .30 .28 525 498 471 442 413 383	.26 .24 .22 .20 .18 .16 354 325 298 271 247 225	.09 .08 .07 .06 .06 .06 127 111 098 088 081 078	.06 .05 .06 .07 .07 .08 077 080 085 094 105 118												
45 .34 .32 .29 .27 .25 .23 452 425 397 368 338 308	.20 .18 .16 .14 .12 .11 279 250 222 196 172 150														

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

SEP-DEC 28 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.)

MST	SEP					OCT					NOV					DEC					
	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20
1700	.28	.26	.24	.22	.19	.17	.15	.13	.11	.09	.07	.05	.04	.03	.02	.01	.01	.00	.01	.01	.02
	378	351	322	292	262	232	202	173	145	119	95	74	501	036	023	014	008	004	004	007	013
15	.22	.20	.18	.16	.14	.11	.09	.07	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	303	275	245	215	184	154	124	095	068	042	018	000	000	000	000	000	000	000	000	000	000
30	.17	.15	.12	.10	.08	.06	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	226	198	168	137	106	076	046	017	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.11	.09	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	149	120	090	059	028	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
1800	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	072	042	012	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

TABLE B-1 SOLAR PARAMETERS $\cos Z = 1$
 $x_0 (W/M=2.)$ ADD 1000 TO VALUES PRECEDED BY *

*** SIGNIFIES $\cos Z = 1$

SEP-DEC 28 N

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

TABLE B-1 SOLAR PARAMETERS $\cos^2 x_0$ ($W/M^2 \cdot \mu$)

JAN-APR 80 N

**PREVIOUS PAGE
IS BLANK**

MST	JAN										FEB										DATE										APR									
	1	5	10	15	20	25	30	5	10	15	20	25	25	30	5	10	15	20	25	25	30	5	10	15	20	25	25	30	5	10	15	20	25	25	30					
0300	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.07	.10	.13													
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	011	055	097	137	174													
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.08	.11	.14														
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	022	061	108	148	185													
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.09	.12	.15														
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	034	071	120	159	197													
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.07	.10	.13	.16													
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	043	093	132	172	209													
0400	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.08	.11	.14	.16														
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	053	103	145	184	221													
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.12	.15	.17														
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	073	116	158	198	235													
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.05	.10	.13	.16													
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	063	130	172	211	248													
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.07	.11	.14	.17	.19													
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	101	145	186	225	262													
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.12	.15	.18	.21													
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	113	159	201	240	276													
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.06	.13	.16	.19	.22													
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	133	174	215	254	291													
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.07	.11	.14	.17	.20													
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	143	169	230	269	306													
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.12	.15	.18	.21													
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	161	204	245	284	320													

JAN-APR 80 N

TABLE B-1 SOLAR PARAMETERS

COS Z = 1.

ADD 1000 TO VALUES PRECEDED BY *

MST	DATE										APR									
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0700	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0800	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

JAN-APR 80 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M²*2.) ... SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

NST	JAN					FEB					DATE					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
0000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.07	.11	.14	.18	.22	.25	.28	.31	.34	.37
0000	000	000	000	000	000	000	000	000	000	000	000	000	000	006	055	103	151	198	245	299	343	384	424	461	495
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.05	.08	.12	.15	.19	.23	.26	.29	.32	.35	.37
0000	000	000	000	000	000	000	000	000	000	000	000	000	000	019	066	114	162	209	256	310	353	375	434	471	505
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.06	.09	.13	.16	.19	.23	.27	.30	.33	.36	.38
0000	000	000	000	000	000	000	000	000	000	000	000	000	000	030	077	125	172	220	266	320	363	403	443	480	514
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.06	.10	.13	.17	.20	.24	.27	.30	.33	.36	.39
0000	000	000	000	000	000	000	000	000	000	000	000	000	000	039	067	134	182	229	275	329	372	413	452	489	523
1000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.07	.10	.14	.17	.21	.25	.29	.31	.34	.37	.39
0000	000	000	000	000	000	000	000	000	000	000	000	000	000	048	096	143	191	238	284	337	383	421	460	496	530
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.08	.11	.14	.18	.21	.25	.28	.32	.34	.37	.40
0000	000	000	000	000	000	000	000	000	000	000	000	000	000	057	104	151	199	246	291	345	383	429	467	503	537
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.08	.11	.15	.18	.22	.26	.29	.32	.35	.38	.40
0000	000	000	000	000	000	000	000	000	000	000	000	000	000	064	111	158	206	252	298	351	394	435	473	509	543
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.08	.12	.15	.19	.22	.26	.29	.32	.35	.38	.41
0000	000	000	000	000	000	000	000	000	000	000	000	000	000	070	117	165	212	258	304	357	405	445	479	515	548
1100	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.09	.12	.16	.19	.23	.26	.30	.33	.36	.38	.41
0000	000	000	000	000	000	000	000	000	000	000	000	000	000	075	122	170	217	263	309	362	404	445	483	519	552
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.06	.09	.13	.16	.19	.23	.27	.30	.33	.36	.39	.41
0000	000	000	000	000	000	000	000	000	000	000	000	000	000	083	127	174	221	267	313	366	403	448	486	522	555
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.06	.09	.13	.16	.20	.23	.27	.30	.33	.36	.39	.41
0000	000	000	000	000	000	000	000	000	000	000	000	000	000	083	130	177	224	270	316	368	410	451	489	524	558
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.06	.10	.13	.16	.20	.23	.27	.30	.33	.36	.39	.41
0000	000	000	000	000	000	000	000	000	000	000	000	000	000	085	132	179	226	272	317	370	412	452	490	526	559

JAN-APR 80 N TABLE B-1 SOLAR PARAMETERS COS² Z = 1X0 (W/M⁻²•C⁻²)*** SIGNIFIES COS² Z = 1
ADD 1000 TO VALUES PRECEDED BY *

MST	JAN					FEB					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1200	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.06	.10	.13	.16	.20	.23	.27 .33 .36 .39 .41
	000	000	000	000	000	000	000	000	000	000	000	000	000	087	134	180	227	273	318	371 413 453 490 526 559
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.10	.13	.16	.20	.23	.27 .33 .36 .39 .41
	000	000	000	000	000	000	000	000	000	000	000	000	000	087	134	181	227	273	318	370 412 452 490 525 559
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.06	.10	.13	.16	.20	.23	.27 .33 .36 .39 .41
	000	000	000	000	000	000	000	000	000	000	000	000	000	085	133	180	226	272	317	369 411 451 488 524 557
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.09	.13	.16	.20	.23	.27 .33 .36 .39 .41
	000	000	000	000	000	000	000	000	000	000	000	000	000	085	131	178	224	270	315	367 403 448 486 521 554
1300	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.06	.09	.13	.16	.19	.23	.27 .33 .36 .38 .41
	000	000	000	000	000	000	000	000	000	000	000	000	000	082	126	175	221	267	311	363 405 445 482 518 551
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.09	.12	.16	.19	.22	.26 .32 .35 .38 .41
	000	000	000	000	000	000	000	000	000	000	000	000	000	078	124	171	217	263	307	359 401 440 478 513 546
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.09	.12	.15	.19	.22	.26 .32 .35 .38 .40
	000	000	000	000	000	000	000	000	000	000	000	000	000	073	120	166	212	257	302	354 395 435 472 508 541
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.08	.12	.15	.18	.22	.25 .32 .34 .37 .40
	000	000	000	000	000	000	000	000	000	000	000	000	000	068	114	160	206	251	296	348 383 429 466 502 535
1400	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.08	.11	.14	.18	.21	.25 .28 .31 .34 .37 .39
	000	000	000	000	000	000	000	000	000	000	000	000	000	061	107	153	199	244	289	340 382 421 459 494 527
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.07	.11	.14	.17	.21	.24 .27 .30 .33 .36 .39
	000	000	000	000	000	000	000	000	000	000	000	000	000	053	099	145	191	237	281	332 374 413 451 486 519
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.07	.10	.13	.17	.20	.24 .27 .30 .33 .35 .38
	000	000	000	000	000	000	000	000	000	000	000	000	000	045	091	137	183	228	272	324 365 404 442 477 511
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.06	.09	.13	.16	.19	.23 .25 .29 .32 .35 .37
	000	000	000	000	000	000	000	000	000	000	000	000	000	036	081	127	173	218	262	314 355 395 432 468 501

JAN-APR BO N TABLE B-1 SOLAR PARAMETERS COS 2 X0 (W/M**2.)

*** SIGNIFIES COS 2 = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	DATE										APR														
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
1500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.09	.12	.15	.18	.22	.25	.28	.31	.34	.36
000	000	000	000	000	000	000	000	000	000	000	000	000	000	025	071	117	163	208	252	304	345	384	422	458	491
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.08	.11	.14	.18	.21	.25	.27	.30	.33	.36
000	000	000	000	000	000	000	000	000	000	000	000	000	000	015	060	106	152	197	241	292	333	373	411	446	480
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.07	.10	.13	.17	.21	.24	.27	.29	.32	.35
000	000	000	000	000	000	000	000	000	000	000	000	000	000	003	049	094	140	185	229	281	322	361	399	435	463
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.06	.09	.13	.16	.20	.23	.25	.29	.31	.34
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	036	082	128	172	217	268	303	349	387	423	456
1600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.08	.12	.15	.19	.22	.25	.28	.30	.33
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	023	069	114	159	204	255	295	336	374	410	443
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.07	.11	.14	.18	.21	.24	.27	.29	.32
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	010	055	101	146	190	242	283	323	361	396	430
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.06	.10	.13	.17	.20	.23	.26	.28	.31
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	021	087	132	176	228	263	309	347	383	416
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.09	.12	.16	.19	.22	.25	.27	.30
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	027	072	117	161	213	255	295	333	369	403
1700	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.07	.11	.15	.18	.21	.23	.26	.29
000	000	000	000	000	000	000	000	000	000	000	000	000	000	003	000	012	058	102	147	198	242	280	318	354	388
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.06	.10	.13	.17	.20	.22	.25	.28
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	042	087	132	183	225	265	303	340	374
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.09	.12	.15	.18	.21	.24	.27
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	027	072	116	166	210	250	286	325	359
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.07	.11	.14	.17	.20	.23	.26
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	011	056	101	153	195	235	273	310	344

JAN-APR

80 N

TABLE B-1

SOLAR PARAMETERS

COS Z

X0 (W/M**2.)

*** SIGNIFIES COS 2 = 1.

ADD 1000 TO VALUES PRECEDED BY *

MST	DATE										DATE									
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1800	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.06	.10	.13	.16	.19	.22	.24	
	000	000	000	000	000	000	000	000	000	000	000	000	005	137	173	220	258	295	329	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.09	.12	.15	.18	.21	.23	
	000	000	000	000	000	000	000	000	000	000	000	000	005	122	164	204	243	280	315	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.08	.11	.14	.17	.20	.22	
	000	000	000	000	000	000	000	000	000	000	000	000	004	106	143	189	228	265	300	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.07	.10	.13	.16	.19	.21	
	000	000	000	000	000	000	000	000	000	000	000	000	039	091	133	174	213	250	285	
1900	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.06	.09	.12	.15	.17	.20	
	000	000	000	000	000	000	000	000	000	000	000	000	024	076	113	159	199	236	271	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.05	.08	.11	.14	.16	.19	
	000	000	000	000	000	000	000	000	000	000	000	000	009	061	103	145	184	221	257	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.07	.10	.13	.15	.18	
	000	000	000	000	000	000	000	000	000	000	000	000	000	047	063	130	170	207	243	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.09	.12	.14	.17	
	000	000	000	000	000	000	000	000	000	000	000	000	000	032	075	117	156	194	229	
2000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.05	.08	.11	.13	
	000	000	000	000	000	000	000	000	000	000	000	000	000	019	062	103	143	181	216	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.07	.10	.12	.15	
	000	000	000	000	000	000	000	000	000	000	000	000	000	005	043	030	130	168	204	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.06	.09	.12	.14	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	035	078	118	156	192	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.08	.11	.13	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	024	066	106	144	181

JAN-APR 80 N

TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.)

*** SIGNIFIES COS Z **1
ADD 1000 TO VALUES PRECEDED BY *

MST	JAN										FEB										MAR										APR									
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30									
2100	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.07	.10	.13	.00	.01	.04	.07	.10	.13									
0000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	013	055	095	134	170	000	002	018	059	098	134									
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.03	.06	.09	.12	000	002	014	085	124	160									
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.03	.06	.08	.11	000	003	035	075	114	151									
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.02	.05	.08	.11	000	003	026	067	105	142									
2200	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.01	.04	.07	.10	000	002	018	059	098	134									
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.01	.04	.07	.10	000	003	011	052	091	128									
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.03	.06	.09	000	003	034	045	085	122									
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.03	.06	.09	000	003	000	040	080	117									
2300	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.03	.06	.08	000	002	000	036	075	112									
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.02	.05	.08	000	003	000	033	072	109									
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.02	.05	.08	000	003	000	030	070	107									
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.02	.05	.08	000	003	000	029	068	106									

JAN-APR 80 N TABLE B-1

SOLAR PARAMETERS COS Z =⁻¹
X0 (W/M⁻²)

*** SIGNIFIES COS Z =⁻¹.
ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					DATE					JUL					AUG				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0000	.10	.13	.15	.17	.19	.20	.22	.22	.23	.23	.23	.23	.22	.21	.20	.19	.17	.15	.13	.10	.08	.05	.02	.00	
0000	140	172	201	227	250	269	286	297	304	308	307	303	295	283	268	249	227	202	168	136	101	064	025	000	
15	.11	.13	.15	.17	.19	.20	.22	.22	.23	.23	.23	.23	.22	.21	.20	.19	.17	.15	.13	.10	.08	.05	.02	.00	
15	141	173	202	228	250	269	287	298	305	308	308	303	295	284	268	250	227	202	168	135	102	065	026	000	
30	.11	.13	.15	.17	.19	.20	.22	.23	.23	.23	.23	.23	.22	.22	.20	.19	.17	.15	.13	.10	.08	.05	.02	.00	
30	143	175	204	229	252	271	288	299	306	309	309	305	296	285	269	251	228	203	169	137	103	066	027	000	
45	.11	.13	.15	.17	.19	.21	.22	.23	.23	.24	.24	.23	.23	.22	.21	.19	.17	.15	.13	.10	.08	.05	.02	.00	
45	145	177	206	232	254	273	291	302	308	312	311	307	298	287	271	252	230	205	171	139	105	068	029	000	
0100	.11	.14	.16	.18	.19	.21	.22	.23	.24	.24	.24	.23	.23	.22	.21	.19	.18	.16	.13	.11	.08	.05	.02	.00	
0100	149	181	210	236	258	276	294	305	312	315	314	309	301	289	274	255	233	208	174	142	108	071	033	000	
15	.11	.14	.16	.18	.20	.21	.22	.23	.24	.24	.24	.24	.23	.22	.21	.20	.18	.16	.13	.11	.08	.06	.03	.00	
15	153	185	214	240	262	281	298	309	316	319	318	313	305	293	278	259	237	212	177	145	112	075	037	000	
30	.12	.14	.16	.18	.20	.22	.23	.24	.24	.24	.24	.24	.23	.23	.21	.20	.18	.16	.14	.11	.09	.06	.03	.00	
30	159	191	220	245	267	286	303	314	320	323	323	318	310	298	282	264	242	216	182	151	117	080	042	002	
45	.12	.15	.17	.19	.21	.22	.23	.24	.25	.25	.24	.24	.23	.22	.20	.19	.17	.14	.12	.09	.06	.04	.01		
45	165	197	226	251	273	292	309	320	326	329	328	324	315	303	288	269	247	222	188	155	122	086	048	008	
0200	.13	.15	.17	.19	.21	.22	.24	.25	.25	.25	.25	.25	.24	.23	.22	.21	.19	.17	.15	.12	.10	.07	.04	.01	
0200	172	204	233	258	280	299	316	326	333	336	335	330	322	310	294	275	253	228	194	163	129	093	055	015	
15	.13	.16	.18	.20	.22	.23	.24	.25	.26	.26	.26	.25	.25	.24	.23	.21	.20	.18	.15	.13	.10	.08	.05	.02	
15	180	212	241	266	288	306	323	334	340	343	342	337	329	317	301	282	260	235	202	173	137	101	063	023	
30	.14	.16	.19	.21	.22	.24	.25	.26	.27	.26	.26	.25	.25	.25	.23	.22	.20	.18	.16	.13	.11	.08	.05	.02	
30	189	221	249	274	296	314	332	342	348	351	350	345	336	324	303	290	268	243	210	179	145	109	071	032	
45	.15	.17	.19	.21	.23	.24	.26	.27	.27	.27	.27	.26	.26	.25	.24	.23	.21	.19	.16	.14	.12	.09	.06	.03	
45	198	230	259	284	305	324	346	351	357	359	358	353	345	333	318	299	277	252	218	183	154	118	081	041	

MAY-AUG 80 N TABLE B-1 SOLAR PARAMETERS COS Z⁻¹
XO (W/M²*2.) *** SIGNIFIES COS Z⁻¹.
ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					JUL					AUG							
	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25			
0300	.16	.18	.20	.22	.24	.25	.26	.27	.28	.28	.27	.27	.26	.25	.23	.22	.20	.17	.15	.12	.10	.07	.04
209	240	269	294	315	333	350	360	366	369	368	363	354	342	327	308	286	262	228	197	164	128	91	52
15	.16	.19	.21	.23	.24	.26	.27	.28	.28	.29	.28	.28	.27	.25	.24	.22	.21	.18	.16	.13	.10	.08	.05
219	251	279	304	326	344	360	370	376	379	378	373	364	352	337	318	297	272	238	203	174	139	102	62
30	.17	.20	.22	.24	.25	.27	.28	.29	.29	.29	.29	.28	.27	.26	.25	.23	.21	.19	.16	.14	.11	.08	.06
231	262	291	315	337	355	371	381	387	389	388	383	375	363	348	329	307	283	249	213	186	150	113	74
45	.18	.20	.23	.25	.26	.28	.29	.30	.30	.30	.30	.29	.28	.27	.26	.24	.22	.20	.17	.15	.12	.09	.06
243	274	302	327	348	366	383	392	398	401	399	394	386	374	359	340	319	294	261	230	197	162	125	96
0400	.19	.21	.24	.25	.27	.28	.30	.30	.31	.31	.31	.30	.29	.28	.27	.25	.23	.21	.19	.16	.13	.10	.07
256	287	315	339	361	378	395	404	410	412	411	406	398	386	370	352	330	306	273	242	210	175	138	99
15	.20	.22	.25	.26	.28	.29	.31	.31	.32	.32	.32	.31	.30	.29	.28	.26	.24	.21	.19	.17	.14	.11	.08
269	300	328	352	373	391	407	416	422	425	423	418	410	398	383	364	343	318	285	255	223	188	151	112
30	.21	.23	.25	.27	.29	.30	.32	.32	.33	.33	.33	.32	.31	.30	.28	.27	.25	.22	.20	.18	.15	.12	.09
282	313	341	365	386	404	420	429	435	437	436	431	422	410	395	377	355	331	298	263	235	201	165	126
45	.22	.24	.27	.28	.30	.31	.33	.33	.34	.34	.34	.33	.32	.31	.29	.28	.26	.23	.21	.19	.16	.13	.10
296	327	354	379	400	417	433	442	448	450	449	444	435	423	408	390	369	344	312	282	243	215	178	140
0500	.23	.25	.28	.29	.31	.32	.34	.34	.35	.35	.35	.34	.33	.32	.30	.29	.27	.25	.22	.20	.17	.14	.12
310	341	368	392	413	430	446	455	461	463	462	457	448	436	421	403	382	358	325	295	263	229	193	155
15	.24	.26	.29	.30	.32	.33	.35	.35	.36	.36	.36	.35	.34	.33	.31	.30	.28	.26	.23	.21	.18	.16	.13
325	355	382	406	427	444	460	469	475	477	475	470	462	450	435	417	396	372	339	310	278	243	207	169
30	.25	.28	.30	.32	.33	.34	.36	.36	.37	.37	.37	.36	.35	.34	.33	.31	.29	.27	.24	.22	.19	.17	.14
339	369	397	421	441	458	474	483	488	490	489	484	475	464	449	431	410	386	354	324	292	258	222	184
45	.26	.29	.31	.33	.34	.35	.37	.37	.38	.38	.38	.37	.36	.35	.34	.32	.30	.28	.25	.23	.20	.18	.15
354	384	411	435	455	472	488	497	502	504	502	497	489	477	463	445	424	400	368	339	307	273	237	199

MAY-AUG 80 N

TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.)

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					DATE					AUG								
	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0600	.27	.30	.32	.34	.35	.37	.38	.39	.39	.39	.39	.38	.37	.36	.35	.33	.31	.29	.27	.24	.22	.19	.16	
	368	399	425	449	469	486	501	510	516	518	516	511	503	491	477	459	438	414	382	353	321	288	252	214
15	.29	.31	.33	.35	.36	.38	.39	.40	.40	.40	.40	.40	.39	.38	.37	.36	.34	.32	.30	.29	.25	.23	.20	.17
	383	413	440	463	483	500	515	524	530	532	530	525	517	505	491	473	452	429	397	363	336	302	267	229
30	.30	.32	.34	.36	.37	.39	.40	.41	.41	.41	.41	.41	.40	.39	.38	.37	.35	.33	.31	.29	.26	.24	.21	.18
	398	428	454	478	498	514	529	538	543	545	544	539	531	519	504	487	466	443	411	382	351	317	282	244
45	.31	.33	.35	.37	.38	.40	.41	.42	.42	.42	.42	.41	.40	.39	.38	.36	.34	.33	.30	.27	.25	.22	.19	
	412	442	468	492	511	528	543	552	557	559	557	553	544	533	518	501	480	457	426	397	365	332	296	259
0700	.32	.34	.36	.38	.39	.41	.42	.43	.43	.43	.43	.42	.41	.40	.39	.37	.35	.33	.31	.28	.26	.23	.20	
	426	456	482	505	525	542	557	565	571	572	571	566	558	547	532	515	494	471	440	411	380	346	311	274
15	.33	.35	.37	.39	.40	.42	.43	.44	.44	.44	.44	.43	.42	.41	.40	.38	.37	.34	.32	.30	.27	.24	.21	
	440	470	496	519	539	555	570	579	584	586	584	579	571	560	546	528	508	485	454	425	394	361	325	288
30	.34	.36	.38	.40	.41	.43	.44	.45	.45	.45	.45	.44	.43	.42	.41	.39	.38	.35	.33	.31	.28	.25	.23	
	454	483	510	532	552	568	583	592	597	599	597	592	584	573	559	541	521	498	467	439	408	375	339	302
45	.35	.37	.39	.41	.42	.44	.45	.46	.46	.46	.46	.45	.44	.43	.42	.40	.39	.36	.34	.32	.29	.26	.24	
	467	497	523	545	565	581	596	604	609	611	610	605	597	586	572	554	534	512	481	452	421	388	353	316
0800	.36	.38	.40	.42	.43	.45	.46	.46	.47	.47	.47	.46	.45	.44	.43	.41	.40	.37	.35	.33	.30	.27	.25	
	480	509	535	558	577	593	608	617	622	624	622	617	609	598	564	547	524	494	465	434	401	366	329	
15	.37	.39	.41	.43	.44	.45	.47	.47	.48	.48	.48	.48	.47	.46	.45	.44	.42	.40	.38	.35	.34	.31	.28	.26
	493	522	547	570	589	605	620	628	633	635	634	629	621	610	596	579	559	537	506	473	447	414	379	342
30	.38	.40	.42	.44	.45	.46	.48	.48	.49	.49	.48	.48	.47	.47	.46	.45	.43	.41	.39	.37	.34	.32	.29	.26
	504	533	559	581	601	616	631	640	645	647	645	641	633	622	608	591	571	548	518	493	459	426	391	355
45	.38	.41	.43	.44	.46	.47	.48	.49	.49	.50	.49	.48	.47	.47	.45	.44	.42	.40	.38	.35	.33	.30	.27	
	516	544	570	592	611	627	642	650	655	657	656	651	644	633	619	602	562	560	529	501	471	438	403	366

MAY-AUG 80 N TABLE B-1 SOLAR PARAMETERS $\cos^2 x_0$ (W/M**2.) ^{** SIGNIFIES COS Z = 1.} ADD 1000 TO VALUES PRECEDED BY *

NST	MAY					JUN					DATE					AUG							
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	30		
0900	.39	.41	.43	.45	.47	.48	.49	.50	.50	.50	.49	.49	.48	.46	.45	.43	.41	.39	.35	.34	.31	.28	
526	555	580	602	622	637	652	660	666	667	666	654	643	629	613	593	571	540	512	482	449	414	377	
15	.40	.42	.44	.46	.47	.49	.50	.50	.51	.51	.50	.49	.48	.47	.45	.44	.41	.39	.37	.34	.32	.29	
536	565	590	612	631	647	661	670	675	677	676	664	653	639	622	603	581	550	522	492	459	424	388	
30	.41	.43	.45	.47	.48	.49	.50	.51	.52	.52	.51	.51	.50	.49	.48	.46	.44	.42	.40	.38	.35	.32	.30
545	574	599	621	640	656	670	679	684	686	695	673	662	648	632	612	590	560	532	501	469	434	397	
45	.41	.43	.45	.47	.48	.50	.51	.52	.52	.52	.51	.51	.51	.50	.48	.47	.45	.43	.41	.38	.36	.33	.30
554	582	607	629	649	664	678	687	692	694	693	688	681	670	657	640	621	599	568	541	510	478	443	406
1000	.42	.44	.46	.48	.49	.50	.52	.52	.53	.53	.53	.52	.51	.50	.49	.47	.46	.43	.41	.39	.36	.34	.31
561	589	614	636	655	671	685	694	699	701	700	696	688	678	664	648	629	606	576	543	518	486	451	414
15	.42	.44	.46	.48	.50	.51	.52	.53	.53	.53	.53	.52	.51	.49	.48	.46	.44	.42	.39	.37	.34	.31	
568	596	621	643	662	677	692	700	706	708	707	703	695	685	671	655	636	614	584	555	525	493	458	421
200	.43	.45	.47	.49	.50	.51	.53	.53	.54	.54	.54	.53	.52	.51	.50	.48	.47	.44	.42	.40	.37	.35	.32
574	602	627	649	667	683	698	706	711	714	713	708	701	691	677	661	642	620	590	562	532	499	464	427
45	.43	.45	.47	.49	.50	.52	.53	.54	.54	.54	.54	.53	.53	.52	.50	.49	.47	.45	.43	.40	.38	.35	.32
579	607	632	654	672	688	702	711	716	719	718	713	706	696	683	666	647	625	595	563	537	505	470	433
1100	.43	.46	.47	.49	.51	.52	.53	.54	.54	.55	.54	.53	.53	.52	.51	.49	.47	.45	.43	.41	.38	.35	.33
583	611	636	657	676	692	705	715	720	723	722	718	711	700	687	671	652	630	600	572	542	509	474	437
15	.44	.46	.48	.49	.51	.52	.53	.54	.55	.55	.54	.54	.53	.52	.51	.49	.48	.45	.43	.41	.38	.36	.33
586	614	639	660	679	695	709	718	724	726	725	721	714	704	691	674	655	633	604	576	545	513	478	441
30	.44	.46	.48	.50	.51	.52	.54	.54	.55	.55	.55	.54	.53	.52	.51	.50	.48	.46	.43	.41	.39	.36	.33
589	617	642	664	682	698	713	722	727	730	729	725	718	708	695	679	660	638	608	580	550	517	482	445

MAY-AUG 80 N

TABLE D-1 SOLAR PARAMETERS CGS Z X0 (W/M**2.)

*** SIGNIFIES COS Z⁻¹.
ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					JUL					AUG									
	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
1200	.44	.46	.48	.50	.51	.52	.54	.54	.55	.55	.55	.54	.54	.53	.51	.50	.48	.46	.44	.41	.39	.36	.33		
	590	617	642	664	683	698	713	722	728	730	729	726	719	709	696	680	661	639	609	581	551	518	483	445	
15	.44	.46	.48	.50	.51	.52	.54	.54	.55	.55	.55	.54	.54	.53	.51	.50	.48	.46	.44	.41	.39	.36	.33		
	589	617	641	663	682	698	713	722	727	730	729	725	719	709	696	680	661	639	609	581	550	517	482	445	
30	.44	.46	.48	.50	.51	.52	.54	.54	.55	.55	.55	.54	.53	.52	.51	.50	.48	.46	.44	.41	.39	.36	.33		
	587	615	640	662	680	696	711	720	726	728	728	724	717	708	695	679	660	638	608	560	549	516	481	443	
45	.43	.46	.48	.49	.51	.52	.53	.54	.55	.55	.55	.54	.53	.52	.51	.50	.48	.46	.43	.41	.38	.36	.33		
	585	612	637	659	678	694	709	718	724	726	726	722	715	706	693	677	658	636	606	573	547	514	479	441	
1300	.43	.45	.47	.49	.51	.52	.53	.54	.54	.55	.54	.54	.53	.52	.51	.49	.48	.45	.43	.41	.38	.35	.33		
	581	609	634	656	675	690	705	715	720	723	723	719	713	703	690	674	655	633	603	575	544	511	475	438	
15	.43	.45	.47	.49	.50	.52	.53	.54	.54	.54	.54	.53	.53	.52	.51	.49	.47	.45	.43	.40	.38	.35	.32		
	577	604	629	651	670	686	701	710	716	719	719	715	709	699	686	670	651	629	599	571	540	507	471	433	
30	.42	.45	.47	.48	.50	.51	.52	.53	.54	.54	.54	.54	.53	.52	.51	.50	.49	.47	.45	.43	.40	.36	.35	.32	
	571	599	624	646	665	681	696	706	712	715	714	711	704	694	682	666	647	625	594	563	535	502	466	428	
45	.42	.44	.46	.48	.49	.51	.52	.53	.53	.54	.54	.53	.53	.52	.51	.50	.48	.47	.44	.42	.40	.37	.34	.31	
	565	593	618	640	659	675	690	700	706	709	709	705	699	683	676	660	641	619	589	563	529	496	460	422	
1400	.41	.44	.46	.47	.49	.50	.51	.52	.53	.53	.53	.51	.52	.52	.51	.49	.48	.46	.44	.42	.39	.37	.34	.31	
	558	586	611	633	652	668	684	693	699	702	702	699	692	683	670	654	635	613	582	554	523	489	453	415	
15	.41	.43	.45	.47	.48	.50	.51	.52	.52	.53	.53	.52	.52	.51	.50	.49	.47	.46	.43	.41	.39	.36	.33	.30	
	550	578	603	625	645	661	676	686	692	695	695	692	685	676	663	647	628	605	575	547	515	482	445	407	
30	.40	.42	.44	.46	.48	.49	.50	.51	.52	.52	.52	.52	.50	.50	.49	.47	.45	.47	.43	.40	.38	.35	.33	.30	
	541	569	594	617	636	652	668	678	684	687	687	684	677	668	655	639	620	597	567	533	507	473	437	398	
45	.40	.42	.44	.45	.47	.48	.50	.50	.51	.51	.51	.51	.51	.51	.50	.49	.48	.46	.44	.42	.40	.37	.35	.32	.29
	532	560	585	607	627	643	659	669	675	679	679	675	667	659	646	630	611	589	558	529	498	464	427	389	

MAY-AUG 80 4 TABLE B-1 SOLAR PARAMETERS COS Z⁻¹
X0 (W/M**2.) *** SIGNIFIES COS Z⁻¹.
ADD 1000 TO VALUES PRECEDED BY *

MST	DATE										DATE													
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1500	.39	.41	.43	.45	.46	.48	.49	.50	.50	.51	.51	.50	.50	.49	.48	.47	.45	.44	.41	.39	.37	.34	.31	.28
521	550	575	597	617	634	650	659	666	669	669	666	660	650	637	621	602	579	548	520	488	454	417	378	
15	.38	.40	.42	.44	.46	.47	.48	.49	.49	.50	.50	.50	.48	.47	.46	.45	.43	.40	.39	.35	.33	.30	.27	
511	539	564	587	607	623	639	649	656	659	659	656	650	640	627	611	592	569	538	503	478	443	406	367	
30	.37	.39	.41	.43	.45	.46	.47	.48	.49	.49	.49	.49	.48	.46	.47	.45	.44	.42	.40	.37	.35	.32	.29	.27
499	527	553	576	596	612	628	638	645	648	649	645	639	629	616	600	581	558	527	493	466	432	395	356	
45	.36	.38	.40	.42	.44	.45	.46	.47	.48	.48	.48	.48	.47	.47	.46	.44	.43	.41	.39	.37	.34	.31	.29	.26
487	515	541	564	584	601	617	627	634	637	637	634	628	618	600	589	570	547	516	487	455	420	383	343	
1600	.35	.38	.40	.41	.43	.44	.46	.46	.47	.47	.47	.47	.46	.45	.44	.42	.40	.38	.36	.33	.30	.28	.25	
474	503	529	552	572	589	605	615	622	626	626	623	616	607	594	577	558	535	504	474	442	407	370	331	
15	.34	.37	.39	.40	.42	.43	.45	.45	.46	.46	.46	.46	.45	.45	.44	.43	.41	.39	.37	.35	.32	.30	.27	.24
461	490	516	539	559	576	593	603	610	613	614	611	604	594	581	565	545	523	491	462	429	394	357	317	
30	.33	.36	.38	.39	.41	.42	.44	.44	.45	.45	.45	.44	.44	.43	.42	.40	.38	.36	.34	.31	.29	.26	.23	
448	477	503	526	546	563	580	590	597	601	601	598	592	582	569	552	533	510	478	443	416	381	344	304	
45	.32	.35	.37	.38	.40	.41	.43	.44	.44	.44	.44	.43	.43	.42	.41	.39	.37	.35	.33	.30	.27	.25	.22	
434	463	489	512	533	550	567	577	584	588	588	585	579	569	556	539	519	496	465	435	403	367	330	290	
1700	.31	.33	.36	.37	.39	.40	.42	.43	.43	.43	.43	.42	.42	.41	.40	.38	.36	.34	.32	.29	.26	.24	.21	
420	449	475	499	519	537	553	564	571	575	575	572	566	556	543	526	506	483	451	421	369	353	315	275	
15	.30	.32	.34	.36	.38	.39	.41	.41	.42	.42	.42	.42	.42	.41	.40	.39	.37	.35	.33	.31	.28	.25	.22	.19
405	435	461	485	505	523	540	550	558	561	562	559	552	542	529	512	492	469	437	407	374	339	301	261	
30	.29	.31	.33	.35	.37	.38	.40	.40	.41	.41	.41	.40	.40	.39	.38	.36	.34	.32	.30	.27	.24	.21	.18	
391	420	447	471	491	509	526	537	544	548	548	545	539	529	515	498	478	455	423	393	360	324	286	246	
45	.28	.30	.32	.34	.36	.37	.39	.39	.40	.40	.40	.40	.40	.39	.38	.37	.35	.33	.31	.28	.26	.23	.20	.17
376	406	432	456	477	495	512	523	530	534	534	531	525	515	501	485	464	441	409	378	345	309	271	231	

MAY-AUG

80

N

TABLE B-1

SOLAR PARAMETERS

LOS Z

X0 (W/M*#2.)

*** SIGNIFIES COS Z **1.

ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					JUL					AUG								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
1800	.27	.29	.31	.33	.35	.36	.38	.39	.39	.39	.39	.39	.39	.38	.37	.36	.34	.32	.30	.27	.25	.22	.19	.16
	362	391	418	442	463	481	498	509	516	520	521	518	511	501	487	470	450	427	394	364	331	295	256	216
15	.26	.28	.30	.32	.34	.35	.36	.37	.38	.38	.38	.38	.38	.37	.36	.34	.33	.31	.29	.26	.24	.21	.18	.15
	347	377	404	428	449	467	484	495	502	506	507	504	497	487	473	456	436	412	380	343	316	280	241	201
30	.25	.27	.29	.31	.33	.34	.35	.36	.37	.37	.37	.37	.37	.36	.35	.33	.32	.30	.27	.25	.23	.20	.17	.14
	332	362	389	414	435	453	470	481	489	493	493	490	483	473	459	442	422	398	365	335	301	265	226	186
45	.24	.26	.28	.30	.32	.33	.34	.35	.36	.36	.36	.36	.36	.35	.34	.32	.31	.29	.26	.24	.22	.19	.16	.13
	318	348	375	399	421	439	457	467	475	479	479	476	470	459	446	428	408	384	351	320	287	250	212	171
1900	.23	.25	.27	.29	.31	.32	.33	.34	.35	.35	.35	.35	.33	.34	.33	.31	.30	.28	.25	.23	.20	.18	.15	.12
	304	334	361	386	407	425	443	454	461	465	466	463	456	446	432	415	394	370	337	305	272	236	197	156
15	.22	.24	.26	.28	.30	.31	.32	.33	.34	.34	.34	.34	.33	.33	.32	.30	.29	.27	.24	.22	.19	.17	.14	.11
	290	320	347	372	394	412	430	441	448	452	453	449	443	432	418	401	380	356	323	292	258	222	183	142
30	.21	.23	.25	.27	.29	.30	.31	.32	.33	.33	.33	.33	.32	.32	.31	.29	.28	.26	.23	.21	.18	.16	.13	.10
	276	306	334	359	380	399	417	428	435	439	440	436	430	419	405	388	367	343	309	273	244	208	169	127
45	.20	.22	.24	.26	.28	.29	.30	.31	.32	.32	.32	.32	.32	.31	.30	.28	.27	.25	.22	.20	.17	.15	.12	.09
	263	293	321	346	368	386	404	415	423	427	427	424	417	406	392	375	354	329	296	265	231	194	155	114
2000	.19	.21	.23	.25	.27	.28	.30	.31	.31	.31	.31	.31	.31	.30	.29	.27	.26	.24	.21	.19	.16	.14	.11	.08
	250	280	308	333	355	374	392	403	410	414	415	411	405	394	380	362	341	317	283	252	218	181	142	100
15	.18	.20	.22	.24	.26	.27	.29	.30	.30	.30	.30	.30	.30	.29	.28	.26	.25	.23	.20	.19	.15	.13	.10	.07
	237	268	296	321	343	362	380	391	399	403	403	400	393	382	368	350	329	304	271	239	205	168	129	88
30	.17	.19	.21	.23	.25	.26	.28	.29	.29	.30	.30	.29	.29	.28	.27	.26	.24	.22	.19	.17	.14	.12	.09	.06
	226	256	285	310	332	351	369	380	387	391	392	388	381	370	356	338	317	292	259	227	193	156	117	75
45	.16	.18	.20	.22	.24	.26	.27	.28	.28	.29	.29	.29	.27	.27	.26	.25	.23	.21	.19	.16	.14	.11	.08	.05
	214	245	274	299	321	340	358	369	377	381	381	377	370	360	345	327	306	281	247	216	181	144	105	64

MAY-AUG 80 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY *

*** SIGNIFIES COS Z = 1.

NST	MAY					JUN					DATE					AUG						
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	
2100	.15	.18	.20	.22	.23	.25	.26	.27	.28	.28	.28	.27	.26	.25	.24	.22	.20	.18	.15	.13	.10	
	204	235	263	289	311	330	348	359	367	370	371	367	360	349	335	317	295	270	236	205	170	133
15	.14	.17	.19	.21	.23	.24	.25	.26	.27	.27	.27	.25	.26	.25	.23	.22	.20	.17	.15	.12	.09	
	194	225	254	279	301	320	338	350	357	361	361	358	350	339	325	307	285	260	226	195	169	123
30	.14	.16	.18	.20	.22	.23	.25	.26	.26	.27	.27	.26	.26	.25	.24	.22	.21	.19	.16	.14	.11	
	185	216	245	270	292	311	330	341	348	352	352	349	341	330	316	298	276	251	217	185	151	113
45	.13	.16	.18	.20	.21	.23	.24	.25	.26	.26	.26	.25	.25	.24	.23	.22	.20	.18	.16	.13	.11	
	176	208	236	262	284	303	321	333	340	344	344	340	333	322	307	289	267	242	208	176	142	105
2200	.13	.15	.17	.19	.21	.22	.24	.25	.25	.25	.25	.24	.24	.23	.21	.20	.18	.15	.13	.10	.07	
	169	200	229	255	277	296	314	325	333	337	337	333	326	314	300	281	259	234	200	163	134	97
15	.12	.14	.17	.19	.20	.22	.23	.24	.25	.25	.25	.24	.23	.22	.21	.19	.17	.15	.12	.10	.07	
	162	194	222	248	271	290	308	319	326	330	330	326	319	308	293	274	252	227	193	161	127	89
30	.12	.14	.16	.18	.20	.21	.23	.24	.24	.25	.24	.24	.23	.22	.20	.19	.17	.14	.12	.09	.06	
	156	188	217	242	265	284	302	313	321	324	324	320	313	301	287	268	246	221	187	155	120	83
45	.11	.14	.16	.18	.20	.21	.22	.23	.24	.24	.24	.22	.22	.21	.20	.18	.16	.14	.11	.09	.06	
	151	183	212	238	260	279	297	308	316	319	319	315	308	296	281	263	241	216	181	149	115	78
2300	.11	.13	.16	.18	.19	.21	.22	.23	.24	.24	.24	.23	.22	.21	.20	.18	.16	.13	.11	.08	.06	
	147	179	206	234	256	275	293	304	312	315	315	311	303	292	277	258	236	211	177	145	110	73
15	.11	.13	.15	.17	.19	.20	.22	.23	.23	.24	.24	.23	.22	.21	.19	.18	.16	.13	.11	.08	.05	
	144	176	205	231	253	272	290	301	309	312	312	308	300	288	273	255	233	207	173	141	107	70
30	.11	.13	.15	.17	.19	.20	.22	.23	.23	.23	.23	.22	.22	.20	.19	.17	.15	.13	.10	.08	.05	
	142	174	203	229	251	270	288	299	306	310	309	305	297	286	271	252	230	205	170	138	104	67
45	.10	.13	.15	.17	.19	.20	.22	.22	.23	.23	.23	.22	.22	.20	.19	.17	.15	.13	.10	.08	.05	
	141	173	202	227	250	269	287	298	305	308	308	304	296	284	269	250	228	203	168	137	102	65

MAY-AUG 80 N

TABLE B-1

SOLAR PARAMETERS

COS Z
X0 (W/M**2.)

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	DATE										DEC										
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15
0300	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0300	.002	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
15	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0400	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0500	.08	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.10	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.11	.08	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

SEP-DEC

80 N TABLE B-1 SOLAR PARAMETERS COS Z
X0 (W/M**2.)

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					NOV					DEC						
	5	10	15	20	30	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30
0600	.12	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	167	126	084	041	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.14	.11	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	182	141	099	057	013	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.15	.12	.09	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	197	157	115	072	028	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.16	.13	.10	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	212	172	130	087	044	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
0700	.17	.14	.11	.08	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	227	187	145	102	059	015	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.18	.15	.12	.09	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	242	201	159	117	073	029	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.19	.16	.13	.10	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	256	215	174	131	087	044	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.20	.17	.14	.11	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	270	229	188	145	101	057	013	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
0800	.21	.18	.15	.12	.08	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	283	243	201	158	115	071	026	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.22	.19	.16	.13	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	296	255	214	171	128	083	039	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.23	.20	.17	.14	.10	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	308	268	226	183	140	096	051	007	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.24	.21	.18	.14	.11	.08	.05	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	320	279	238	195	151	107	063	018	000	000	000	000	000	000	000	000	000	000	000	000	000	000

SEP-DEC

80 N

TABLE B-1 SOLAR PARAMETERS CDS 2 X0 (W/M**2.)

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

NST	SEP					OCT					NOV					DEC						
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30
0900	.25	.22	.18	.15	.12	.09	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	331	290	249	206	162	118	074	029	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.25	.22	.19	.16	.13	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	341	301	259	216	172	128	084	039	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.26	.23	.20	.17	.13	.10	.07	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	351	310	269	226	182	137	093	048	004	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.27	.24	.20	.17	.14	.11	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	360	319	277	234	190	146	101	056	012	000	000	000	000	000	000	000	000	000	000	000	000	000
1000	.27	.24	.21	.18	.15	.11	.08	.05	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	368	327	285	242	198	153	109	064	019	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.28	.25	.22	.19	.16	.12	.08	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	375	334	292	249	205	160	115	070	026	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.28	.25	.22	.19	.16	.12	.09	.06	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	381	340	298	255	211	166	121	076	031	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.29	.26	.22	.19	.16	.13	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	386	345	303	260	216	171	126	081	036	000	000	000	000	000	000	000	000	000	000	000	000	000
1100	.29	.26	.23	.19	.16	.13	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	390	350	307	264	219	175	129	084	039	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.29	.26	.23	.20	.16	.13	.10	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	394	353	310	267	222	177	132	067	042	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.29	.26	.23	.20	.17	.13	.10	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	396	355	313	269	224	179	134	088	044	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.30	.26	.23	.20	.17	.13	.10	.07	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	398	356	314	270	225	180	134	089	044	000	000	000	000	000	000	000	000	000	000	000	000	000

SEP-DEC

80 N

TABLE B-1

SOLAR PARAMETERS

COS Z
X0 (W/M**2.)

*** SIGNIFIES COS Z = 1.

ADD 1000 TO VALUES PRECEDED BY *

NST	SEP					OCT					NOV					DEC				
	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25
1200	.30	.26	.23	.20	.17	.13	.10	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	398	357	314	270	225	180	134	089	044	000	000	000	000	000	000	000	000	000	000	000
15	.30	.26	.23	.20	.16	.13	.10	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	397	356	313	269	224	179	133	087	042	000	000	000	000	000	000	000	000	000	000	000
30	.29	.26	.23	.20	.16	.13	.10	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	396	354	311	267	222	176	131	065	040	000	000	000	000	000	000	000	000	000	000	000
45	.29	.26	.23	.19	.16	.13	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	393	352	308	264	219	173	127	081	036	000	000	000	000	000	000	000	000	000	000	000
1300	.29	.26	.23	.19	.16	.12	.09	.06	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	390	348	305	260	215	169	123	077	032	000	000	000	000	000	000	000	000	000	000	000
15	.29	.25	.22	.19	.15	.12	.09	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	385	343	300	255	210	164	118	072	026	000	000	000	000	000	000	000	000	000	000	000
30	.28	.25	.22	.18	.15	.12	.08	.05	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	380	338	294	249	204	158	111	065	020	000	000	000	000	000	000	000	000	000	000	000
45	.28	.25	.21	.18	.14	.11	.08	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	373	331	287	243	197	151	104	058	013	000	000	000	000	000	000	000	000	000	000	000
1400	.27	.24	.21	.17	.14	.10	.07	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	366	324	280	235	189	143	096	050	004	000	000	000	000	000	000	000	000	000	000	000
15	.27	.23	.20	.17	.13	.10	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	358	316	272	226	180	134	087	041	000	000	000	000	000	000	000	000	000	000	000	000
30	.26	.23	.19	.16	.13	.09	.06	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	349	306	262	217	171	124	078	031	000	000	000	000	000	000	000	000	000	000	000	000
45	.25	.22	.19	.15	.12	.08	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	339	297	252	207	161	114	067	021	003	000	000	000	000	000	000	000	000	000	000	000

SEP-DEC

80 N

TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M²*2.)

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					NOV					DEC					
	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	30
1500	.24	.21	.18	.14	.11	.08	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	329	286	242	196	150	103	056	009	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.24	.20	.17	.14	.10	.07	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	318	275	230	184	138	991	044	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.23	.19	.16	.13	.09	.06	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	306	263	218	172	126	79	032	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.22	.19	.15	.12	.08	.05	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	294	250	205	159	113	666	018	000	000	000	000	000	000	000	000	000	000	000	000	000	000
1600	.21	.18	.14	.11	.07	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	281	237	192	146	99	52	005	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.20	.17	.13	.10	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	267	223	178	132	85	38	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.19	.16	.12	.09	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	253	209	164	118	71	24	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.18	.14	.11	.08	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	239	195	150	103	56	09	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
1700	.17	.13	.10	.07	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	224	180	135	88	41	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.16	.12	.09	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	210	165	120	73	26	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.14	.11	.08	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	195	150	105	58	011	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.13	.10	.07	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	179	135	89	43	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

TABLE B-1 SOLAR PARAMETERS COS Z =¹
X0 (W/m²*2.) SEP-DEC 80 N *** SIGNIFIES COS Z =¹.
ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					NOV					DEC					
	5	10	15	20	30	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25
1800 .12 .09 .05 .02 .00 .00 164 120 074 027 000 000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18 .11 .08 .04 .01 .00 .00 149 104 059 012 000 000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30 .10 .07 .03 .00 .00 .00 134 069 043 000 000 000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45 .09 .06 .02 .00 .00 .00 119 074 028 000 000 000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1900 .08 .04 .01 .00 .00 .00 104 059 013 000 000 000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18 .07 .03 .00 .00 .00 .00 090 045 000 000 000 000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30 .06 .02 .00 .00 .00 .00 075 031 000 000 000 000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45 .05 .01 .00 .00 .00 .00 062 017 000 000 000 000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2000 .04 .00 .00 .00 .00 .00 048 003 000 000 000 000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18 .03 .00 .00 .00 .00 .00 035 000 000 000 000 000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30 .02 .00 .00 .00 .00 .00 023 000 000 000 000 000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45 .01 .00 .00 .00 .00 .00 011 000 000 000 000 000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

SEP-DEC 80 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/m**2.)

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	1	5	10	15	20	25	30	DATE						APR					
								5	10	15	20	25	30	5	10	15	20	25	30
0400	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

JAN-APR 60 N TABL B-1 SOLAR PARAMETERS $\cos^2 x_0$ (W/N=+2.) *** SIGNIFIES COS 2 =1.
ADD 1000 TO VALUES PRECEDED BY .

MST	1	5	10	15	20	25	30	DATE						APR						
								5	10	15	20	25	30	5	10	15	20	25	30	
0700	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.07	.11	.14	.17	
	000	000	000	000	000	000	000	000	000	000	000	000	000	009	054	059	144	190	234	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.07	.10	.14	.17	.20	
	000	000	000	000	000	000	000	000	000	000	000	000	000	053	098	143	188	233	277	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.07	.10	.13	.17	.20	.23	
	000	000	000	000	000	000	000	000	000	000	000	000	000	095	141	166	231	276	319	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.10	.13	.16	.20	.23	.26	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	029	070	138	183	228	273
0800	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.08	.13	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	031	070	111	179	224	268
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.08	.11	.16	
	000	000	000	000	000	000	000	000	000	000	000	000	000	001	034	070	109	150	219	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.05	.08	.11	.14	.19	
	000	000	000	000	000	000	000	000	000	000	000	000	000	038	072	108	147	188	257	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.08	.10	.13	.16	.21	
	000	000	000	000	000	000	000	000	000	000	000	000	000	074	108	145	184	225	294	
0900	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.08	.10	.13	.16	.19	.24	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	021	044	071	108	
15	.00	.01	.01	.02	.02	.03	.03	.05	.05	.07	.10	.12	.15	.18	.21	.24	.27	.30	.37	
	003	008	018	033	052	076	103	140	175	212	251	292	361	404	448	492	535	576	624	
30	.02	.03	.03	.04	.04	.06	.07	.09	.12	.15	.17	.20	.23	391	435	478	522	564	605	
	030	036	046	062	081	105	133	170	205	242	282	323	30	30	33	37	40	43	46	
45	.04	.04	.05	.06	.06	.09	.09	.11	.14	.17	.19	.22	.25	420	463	506	549	591	632	

*** SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY *

JAN-APR 60 N TABLE B-1 SOLAR PARAMETERS COS Z = 1.

X0 (W/M**2.)

MST	JAN										FEB										MAR										APR									
	1	5	10	15	20	25	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30										
1000	.06	.06	.07	.08	.09	.11	.13	.16	.18	.21	.24	.27	.32	.35	.38	.42	.45	.48	.51	.54	.57	.59	.62	.64	.703	.743	.774	.806	.835	.862										
079	085	096	112	133	157	185	224	259	296	336	377	446	489	532	574	616	657	725	761	795	826	855	882																	
15	.07	.08	.08	.10	.11	.13	.15	.18	.20	.23	.26	.29	.34	.37	.40	.43	.46	.49	.53	.55	.58	.61	.63	.65																
099	106	118	134	155	180	208	247	282	320	360	401	469	512	555	597	639	679																							
30	.08	.09	.10	.11	.12	.14	.16	.19	.22	.24	.27	.30	.35	.38	.42	.45	.48	.51	.54	.57	.60	.62	.65	.67																
117	124	137	154	175	200	229	268	303	341	381	422	490	532	575	617	658	698																							
45	.09	.10	.11	.12	.14	.15	.18	.20	.23	.26	.29	.32	.37	.40	.43	.46	.49	.52	.56	.59	.61	.63	.66	.68																
133	140	153	170	192	217	247	286	321	359	399	440	504	550	593	635	675	715																							
1100	.10	.11	.12	.13	.15	.16	.19	.21	.24	.27	.30	.33	.38	.41	.44	.47	.50	.53	.57	.59	.62	.64	.67	.69																
146	153	167	185	206	232	262	301	337	375	415	456	523	566	608	649	690	729																							
15	.11	.12	.13	.14	.15	.17	.19	.22	.25	.28	.31	.34	.39	.42	.45	.48	.51	.54	.57	.60	.63	.65	.67	.69																
156	164	178	196	218	244	274	314	350	388	427	469	536	578	620	661	701	740																							
30	.12	.12	.13	.15	.16	.18	.20	.23	.26	.28	.31	.34	.39	.42	.45	.49	.52	.55	.58	.61	.63	.66	.68	.70																
164	172	186	205	227	254	284	323	360	398	437	478	545	587	629	670	710	748																							
45	.12	.13	.14	.15	.17	.18	.21	.24	.26	.29	.32	.35	.40	.43	.46	.49	.52	.55	.58	.61	.63	.66	.68	.70																
169	177	192	211	234	260	290	330	367	405	445	486	552	594	635	676	715	753																							
1200	.12	.13	.14	.15	.17	.19	.21	.24	.26	.29	.32	.35	.40	.43	.46	.49	.52	.55	.58	.61	.64	.66	.68	.70																
171	179	194	214	237	264	294	335	371	409	449	490	556	598	639	679	718	756																							
15	.12	.13	.14	.15	.17	.19	.21	.24	.27	.29	.32	.35	.40	.43	.46	.49	.52	.55	.58	.61	.63	.66	.68	.70																
170	179	194	214	238	265	295	336	372	410	450	491	557	598	639	679	718	755																							
30	.12	.12	.14	.15	.17	.19	.21	.24	.26	.29	.32	.35	.40	.43	.46	.49	.52	.55	.58	.61	.63	.65	.68	.70																
166	176	191	211	235	263	294	334	371	409	448	489	555	596	636	676	715	752																							
45	.11	.12	.13	.15	.16	.18	.21	.23	.26	.29	.32	.35	.40	.43	.46	.49	.52	.54	.58	.60	.63	.65	.67	.69																
160	170	186	206	230	258	289	330	366	404	444	484	550	591	631	670	709	745																							

JAN-APR 60 N TABLE B-1

SOLAR PARAMETERS COS² X₀ (W/M²*2.)*** SIGNIFIES COS 2 *1.
ADD 1000 TO VALUES PRECEDED BY *

NSI	1	5	10	15	20	25	30	DATE						APR										
								5	1'	15	20	25	5	10	15	20	25	30	5	10				
1300	.11	.11	.13	.14	.16	.18	.20	.23	.26	.28	.31	.34	.33	.42	.45	.48	.51	.54	.57	.59	.62	.64	.66	.68
151	151	161	177	198	222	250	281	322	359	397	436	477	542	582	622	662	700	736	778	811	841	870	897	921
15	.10	.11	.12	.13	.15	.17	.19	.22	.25	.28	.30	.33	.38	.41	.44	.47	.50	.53	.56	.59	.61	.63	.65	.67
139	149	156	167	172	194	240	271	312	348	387	426	466	531	571	611	650	688	724	765	793	829	857	884	908
30	.09	.10	.11	.12	.14	.16	.18	.21	.24	.27	.30	.32	.37	.40	.43	.46	.49	.52	.55	.57	.60	.62	.64	.66
125	135	152	173	198	227	258	299	335	373	413	453	517	557	597	636	673	709	750	783	813	842	868	893	
45	.08	.08	.10	.11	.13	.15	.17	.20	.23	.26	.28	.31	.36	.39	.42	.45	.48	.50	.54	.56	.58	.61	.63	.65
108	119	136	157	182	211	242	283	320	358	397	437	501	541	580	618	656	691	732	765	795	823	850	874	
1400	.06	.07	.08	.10	.12	.14	.16	.19	.21	.24	.27	.30	.35	.38	.41	.43	.46	.49	.52	.55	.57	.59	.61	.63
668	699	117	138	164	192	224	265	301	339	378	418	482	521	560	598	635	671	712	744	774	803	829	854	
15	.05	.06	.07	.08	.10	.12	.14	.17	.20	.23	.26	.28	.33	.36	.39	.42	.45	.47	.50	.53	.55	.58	.60	.62
666	677	695	117	143	171	203	244	280	318	357	396	460	499	538	576	613	648	689	721	751	780	806	831	
30	.03	.04	.05	.07	.08	.11	.13	.16	.18	.21	.24	.27	.31	.34	.37	.40	.43	.45	.49	.51	.53	.56	.58	.60
042	053	071	093	119	146	179	220	256	294	333	372	435	475	513	551	588	623	663	695	726	754	781	805	
45	.01	.02	.03	.05	.07	.09	.11	.14	.16	.19	.22	.25	.29	.32	.35	.38	.41	.43	.46	.49	.51	.54	.56	.58
015	027	045	067	093	122	153	194	230	268	306	346	409	448	486	524	560	595	636	667	698	726	753	778	
1500	.00	.00	.01	.03	.05	.07	.09	.12	.14	.17	.20	.23	.27	.30	.33	.36	.39	.41	.44	.47	.49	.51	.54	.56
000	000	017	039	065	094	125	166	202	239	278	317	379	418	456	494	530	565	606	637	668	696	723	748	
15	.00	.00	.00	.01	.02	.05	.07	.10	.12	.15	.18	.20	.25	.28	.31	.34	.36	.39	.42	.44	.47	.49	.51	.53
000	000	000	009	035	063	095	136	171	209	247	286	348	387	425	462	498	533	573	605	636	664	691	717	
30	.00	.00	.00	.00	.00	.02	.04	.07	.10	.13	.15	.18	.23	.25	.28	.31	.34	.36	.39	.42	.44	.47	.49	.51
45	.00	.00	.00	.00	.00	.00	.02	.05	.07	.10	.13	.16	.20	.23	.26	.28	.31	.34	.37	.39	.42	.44	.46	.48
000	000	000	000	000	000	000	028	669	104	141	179	218	279	318	355	392	428	463	503	535	566	595	623	648

JAN-APR 60 N TABLE B-1 SOLAR PARAMETERS $\cos^2 z$ ^{*1}
 x_0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY *

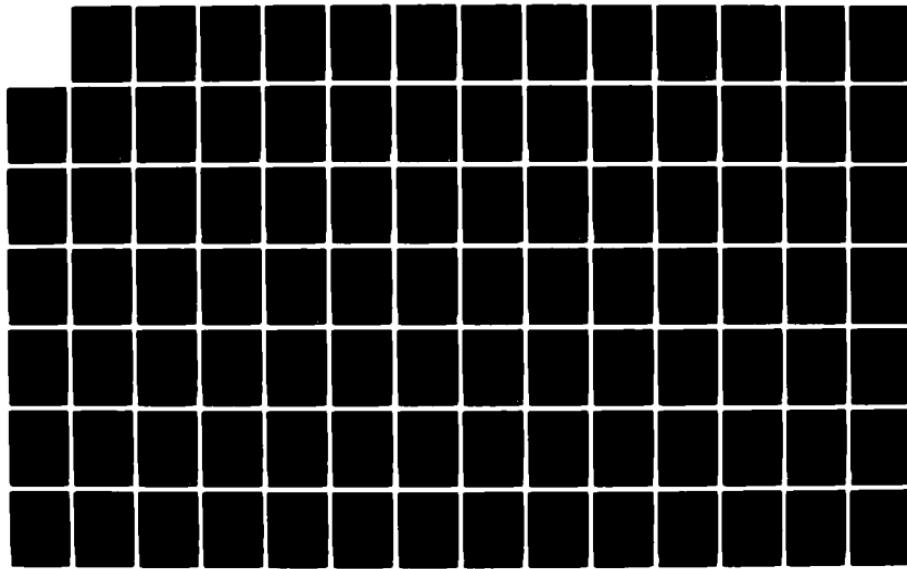
MST	DATE										APR									
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1600	.00	.00	.00	.00	.00	.00	.00	.02	.05	.08	.10	.13		.17	.20	.23	.26	.28	.31	
	000	000	000	000	000	000	000	033	068	105	143	161		242	280	316	355	391	426	
15	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.07	.10		.15	.17	.20	.23	.26	.28	
	000	000	000	000	000	000	000	000	030	067	104	142		203	241	279	316	352	387	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.07		.12	.15	.17	.20	.23	.25	
	000	000	000	000	000	000	000	000	000	027	056	102		163	201	238	275	311	346	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.04		.09	.12	.14	.17	.20	.22	
	000	000	000	000	000	000	000	000	000	000	024	061		122	159	197	233	269	304	
1700	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01		.06	.08	.11	.14	.17	.19	
	000	000	000	000	000	000	000	000	000	000	000	019		079	117	154	191	227	262	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.03	.05	.08	.11	.13	.16	
	000	000	000	000	000	000	000	000	000	000	000	000		036	073	110	147	183	218	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.00	.02	.05	.07	.10	.13	
	000	000	000	000	000	000	000	000	000	000	000	000		000	029	066	103	139	174	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.00	.00	.02	.04	.07	.10	
	000	000	000	000	000	000	000	000	000	000	000	000		000	000	021	058	094	130	
1800	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.00	.00	.00	.01	.04	.06	
	000	000	000	000	000	000	000	000	000	000	000	000		000	000	000	013	049	085	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.00	.00	.00	.00	.03	.06	
	000	000	000	000	000	000	000	000	000	000	000	000		000	000	000	000	000	040	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.00	.00	.00	.00	.00	.00	
	000	000	000	000	000	000	000	000	000	000	000	000		000	000	000	000	000	000	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.00	.00	.00	.00	.00	.00	
	000	000	000	000	000	000	000	000	000	000	000	000		000	000	000	000	000	000	

JAN-APR 60 N TABLE B-1

SOLAR PARAMETERS CCS Z
X0 (W/M**2.)*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

AD-A148 096 OPERATIONAL TACTICAL DECISION AID (OTDA) FOR INFRARED
 (8-12 MICRORAMETERS)...(U) SYSTEMS AND APPLIED SCIENCES
 CORP VIENNA VA D B HODGES 30 SEP 83 SCIENTIFIC-8-VOL-3
UNCLASSIFIED AFGL-TR-83-0334-VOL-3 F19628-81-C-0042 F/G 4/1 NL

3/4





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

MST	DATE												DATE											
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25
1900 .00	.00 .00																							
15 .00	.00 .00																							
30 .00	.00 .00																							
45 .00	.00 .00																							

JAN-APR 60 N TABLE B-1 SOLAR PARAMETERS $\cos^2 x_0$ (W/M²*2.)

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					JUL					AUG								
	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0200	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
0600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
0300	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.01	.02	.02	.02	.01	.01	.00	.00	.00	.00	.00	
0600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
15	.00	.00	.00	.00	.02	.03	.04	.04	.04	.04	.03	.03	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	
30	.00	.00	.00	.01	.03	.04	.05	.06	.06	.06	.06	.05	.04	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	
45	.00	.00	.02	.04	.05	.07	.08	.09	.09	.09	.09	.08	.06	.05	.04	.02	.00	.07	.06	.05	.04	.02	.00	
0400	.01	.03	.05	.06	.09	.10	.11	.11	.11	.11	.11	.10	.09	.08	.06	.05	.03	.01	.00	.00	.00	.00	.00	
0600	.06	.06	.06	.06	.06	.122	.136	.144	.149	.149	.147	.140	.131	.118	.103	.084	.063	.040	.009	.000	.000	.000	.000	.000
15	.03	.06	.08	.09	.11	.12	.13	.14	.14	.14	.13	.13	.12	.10	.09	.07	.06	.03	.01	.00	.00	.00	.00	
30	.06	.08	.10	.12	.14	.15	.16	.16	.17	.17	.16	.15	.14	.13	.12	.10	.09	.06	.04	.02	.00	.00	.00	
45	.09	.11	.13	.15	.16	.18	.19	.19	.19	.19	.19	.18	.17	.16	.15	.13	.11	.09	.07	.05	.03	.00	.00	
122	151	177	199	218	233	247	254	257	258	255	248	239	226	211	193	173	151	121	095	066	037	006	000	

MAY-AUG 60 N TABLE 8-1 SOLAR PARAMETERS COS Z X0 (W/M²*2.) *** SIGNIFIES COS Z *1.
ADD 1000 TO VALUES PRECEDED BY *

MAY	MAY										JUN										JUL										AUG									
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30				
0500	.12	.14	.16	.18	.19	.20	.21	.22	.22	.22	.22	.22	.21	.20	.19	.18	.16	.14	.12	.10	.08	.06	.04	.01																
	163	192	217	239	257	272	285	292	298	296	293	296	277	264	249	232	212	190	161	134	107	077	047	015																
15	.15	.17	.19	.21	.22	.23	.24	.25	.25	.25	.25	.25	.24	.23	.22	.20	.19	.17	.15	.13	.11	.09	.07	.04																
	204	233	258	279	297	312	324	331	334	334	331	325	315	303	268	271	251	230	201	175	148	119	089	058																
30	.18	.20	.22	.24	.25	.26	.27	.28	.28	.28	.28	.28	.27	.26	.25	.23	.22	.20	.18	.15	.14	.12	.10	.08																
	246	274	299	320	337	352	364	371	374	374	370	364	355	343	328	311	292	270	242	216	189	161	131	100																
45	.21	.24	.25	.27	.28	.29	.30	.31	.31	.31	.31	.31	.30	.29	.28	.27	.25	.23	.21	.19	.17	.15	.13	.11																
	288	316	340	361	378	392	404	410	413	413	410	404	394	382	368	351	332	311	283	253	231	203	174	144																
0800	.25	.27	.29	.30	.31	.33	.33	.34	.34	.34	.34	.34	.33	.32	.31	.30	.28	.27	.24	.23	.21	.18	.16	.14																
	331	356	382	402	419	432	444	450	453	453	450	443	434	422	408	392	373	352	325	300	274	246	217	187																
15	.28	.30	.32	.33	.35	.36	.36	.37	.37	.37	.37	.37	.36	.35	.34	.33	.31	.30	.28	.26	.24	.22	.19	.17																
	373	400	423	443	460	473	484	490	493	493	489	483	474	463	448	432	414	393	366	342	316	289	260	230																
30	.31	.33	.35	.36	.38	.39	.39	.40	.40	.40	.40	.40	.524	.530	.533	.532	.529	.523	.514	.503	.489	.473	.454	.434	.31	.23	.27	.25	.23	.20										
	415	441	464	484	500	513	524	530	533	533	532	523	514	503	489	473	454	434	408	384	358	331	303	274																
45	.34	.36	.38	.39	.41	.42	.42	.43	.43	.43	.43	.43	.42	.41	.40	.39	.37	.36	.34	.32	.30	.28	.26	.24																
	457	483	505	524	540	553	564	570	572	572	568	562	553	542	529	513	495	475	449	425	405	373	346	316																
0700	.37	.39	.41	.42	.44	.45	.45	.46	.46	.46	.46	.45	.45	.44	.43	.42	.40	.39	.37	.35	.33	.31	.29	.27																
	498	523	543	564	580	592	603	609	611	610	607	601	592	581	568	552	535	515	490	466	441	415	388	359																
15	.40	.42	.44	.45	.46	.47	.48	.49	.49	.49	.48	.48	.47	.46	.45	.43	.42	.40	.39	.36	.34	.32	.30																	
	538	563	585	604	619	631	642	647	649	649	645	639	631	620	607	592	574	555	530	507	492	456	429	400																
30	.43	.45	.47	.48	.49	.50	.51	.52	.52	.52	.51	.51	.50	.49	.48	.46	.45	.43	.41	.39	.37	.35	.33																	
	578	602	624	642	657	669	679	684	686	686	683	677	669	658	645	630	613	594	569	546	522	496	469	441																
45	.46	.48	.49	.51	.52	.53	.54	.54	.55	.55	.54	.54	.53	.53	.52	.50	.49	.48	.46	.44	.42	.40	.38	.36																
	616	640	661	679	694	706	716	721	723	722	719	713	705	695	682	667	651	632	607	585	561	536	509	481																

MAY-AUG 60 N TABLE B-1 SOLAR PARAMETERS $\cos^2 Z_{X0} (\text{W/M}^2 \cdot \text{s}^2)$ *** SIGNIFIES $\cos^2 Z = 1$.
AND 1000 TO VALUES PRECEDED BY +

DATE	MAY										JUN										JUL										AUG									
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30																
0800	.49	.50	.52	.54	.55	.56	.57	.57	.57	.57	.57	.57	.56	.55	.54	.53	.52	.50	.48	.47	.45	.43	.41	.39																
0800	653	677	697	715	730	741	751	756	758	757	754	749	741	730	718	704	697	669	644	622	599	574	547	519																
15	.51	.53	.55	.56	.57	.58	.59	.60	.60	.60	.60	.59	.59	.58	.57	.56	.54	.53	.51	.43	.46	.46	.44	.41																
30	.54	.56	.57	.59	.60	.61	.62	.62	.62	.62	.62	.62	.61	.60	.59	.58	.57	.56	.54	.52	.50	.48	.46	.44																
45	.58	.60	.61	.62	.63	.64	.64	.64	.65	.65	.64	.64	.63	.63	.62	.61	.59	.58	.56	.55	.53	.51	.49	.47																
7000	.58	.60	.62	.63	.64	.65	.66	.66	.66	.67	.67	.66	.66	.65	.64	.63	.62	.60	.66	.57	.55	.53	.51	.49																
7000	785	808	827	844	857	869	877	882	884	884	881	876	869	859	848	835	819	802	779	753	735	710	684	657																
15	.61	.62	.64	.65	.66	.67	.68	.69	.69	.69	.69	.68	.68	.67	.66	.65	.64	.63	.61	.53	.57	.55	.53	.51																
30	.62	.64	.66	.67	.68	.69	.70	.70	.71	.71	.71	.70	.70	.69	.68	.67	.66	.65	.63	.61	.59	.57	.55	.53																
45	.64	.66	.68	.69	.70	.71	.72	.72	.72	.72	.72	.72	.72	.71	.70	.69	.68	.66	.65	.63	.61	.59	.57	.55																
1000	.66	.68	.69	.70	.72	.72	.73	.74	.74	.74	.74	.74	.73	.73	.72	.71	.70	.68	.66	.65	.63	.61	.59	.57																
1000	886	907	926	942	955	965	974	979	981	979	975	968	960	949	936	922	905	883	863	840	816	790	762																	
15	.67	.69	.71	.72	.73	.74	.75	.75	.75	.75	.75	.75	.75	.74	.73	.72	.71	.70	.68	.66	.65	.63	.60	.58																
30	.69	.70	.72	.73	.74	.75	.76	.76	.77	.77	.77	.76	.76	.75	.74	.74	.72	.71	.72	.70	.69	.68	.66	.64																
45	.70	.71	.73	.74	.75	.76	.77	.77	.77	.78	.78	.77	.77	.76	.76	.75	.74	.72	.71	.69	.67	.65	.63	.61																
MAY-AUG	864	886	904	920	933	944	953	958	960	958	953	944	946	938	927	914	899	883	860	840	817	793	767	739																

TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/m²*2.) * * SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

NST	MAY					JUN					DATE					AUG						
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	
1100	.71	.72	.74	.75	.76	.77	.78	.78	.79	.79	.79	.78	.79	.77	.77	.76	.75	.73	.71	.70	.68	
	948	969	987	997	002	015	025	*034*039*042*043*041*038					*032*024*014*002	989	973	951	933	908	884	857	829	
15	.71	.73	.74	.76	.77	.78	.79	.79	.79	.79	.79	.79	.78	.77	.76	.75	.74	.72	.71	.69	.67	
	957	978	995	011	023	034	*043*048*051*052*051*047					*042*034*024*013	999	983	961	941	919	894	868	839		
30	.72	.73	.75	.76	.77	.78	.79	.79	.80	.80	.80	.79	.79	.78	.77	.76	.75	.73	.71	.69	.67	
	964	984	001	017	029	040	*049*055*058*059*058*054					*049*042*032*020*007	991	969	949	926	902	875	846			
45	.72	.74	.75	.76	.77	.78	.79	.80	.80	.80	.80	.80	.79	.78	.77	.76	.75	.73	.72	.70	.68	
	967	987	005	020	033	043	*053*058*062*063*062*059					*054*046*037*025*012	996	974	954	931	907	880	851			
1200	.72	.74	.75	.76	.78	.78	.79	.80	.80	.80	.80	.80	.79	.78	.78	.76	.75	.73	.72	.70	.68	
	968	988	005	021	034	044	*054*060*063*064*064*061					*056*049*039*028*014	999	977	955	934	909	881	852			
15	.72	.73	.75	.76	.77	.78	.79	.80	.80	.80	.80	.80	.79	.78	.78	.76	.75	.73	.72	.70	.68	
	968	986	003	019	032	042	*052*058*062*063*063*060					*055*048*039*028*014	998	977	955	933	908	880	851			
30	.71	.73	.75	.76	.77	.78	.79	.79	.80	.80	.80	.79	.79	.78	.77	.76	.75	.73	.72	.70	.68	
	961	981	999	014	027	038	*048*054*058*060*059*057					*052*045*036*025*011	996	974	953	930	904	877	847			
45	.71	.73	.74	.75	.76	.77	.78	.79	.80	.80	.80	.79	.79	.78	.77	.76	.75	.73	.71	.69	.67	
	953	973	991	007	020	031	*041*047*051*053*053*051					*046*039*031*019*006	990	968	947	924	898	870	840			
1300	.70	.72	.73	.75	.76	.77	.78	.78	.79	.79	.79	.78	.78	.77	.76	.75	.74	.72	.70	.69	.66	
	943	963	981	997	010	021	*032*038*042*045*045*042					*038*031*022*011	998	982	960	935	915	889	861	830		
15	.69	.71	.72	.74	.75	.76	.77	.77	.77	.78	.78	.78	.77	.76	.76	.75	.73	.71	.70	.68	.66	
	930	950	968	984	998	009	*020*026*031*033*033*031					*027*021*012*000	987	971	949	927	903	877	849	816		
30	.68	.70	.71	.73	.74	.75	.76	.76	.76	.77	.77	.76	.77	.76	.76	.75	.72	.70	.68	.66	.64	
	915	935	953	969	983	994	*005*012*017*019*020*018					*014*007	998	987	974	958	935	913	889	863	834	803
45	.67	.68	.70	.71	.72	.73	.74	.75	.76	.76	.76	.75	.75	.74	.73	.72	.71	.69	.67	.65	.63	
	897	917	935	951	965	977	988					998	992	983	972	958	942	919	897	873	846	816

MAY-AUG 60 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.) * SIGNIFIES COS Z = 1.
** ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					JUL					AUG										
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30				
1400	.65	.67	.68	.70	.71	.72	.73	.74	.74	.74	.74	.74	.74	.74	.74	.72	.71	.70	.68	.66	.64	.62	.59	.57		
	876	897	915	931	946	958	969	977	982	985	985	984	980	973	965	953	940	923	900	879	853	826	796	764		
15	.63	.65	.67	.68	.69	.70	.71	.72	.72	.73	.73	.71	.72	.72	.71	.70	.69	.68	.66	.64	.62	.60	.58	.55		
	853	874	893	909	923	936	948	955	961	964	965	963	959	953	944	933	919	902	879	857	832	804	774	742		
30	.62	.63	.65	.66	.67	.69	.70	.70	.71	.71	.71	.71	.70	.70	.69	.68	.66	.64	.63	.61	.58	.56	.53			
	828	849	868	885	899	912	924	932	938	941	942	940	937	930	922	910	896	879	856	833	808	780	749	716		
45	.60	.61	.63	.64	.65	.67	.68	.68	.69	.69	.69	.69	.69	.68	.68	.68	.67	.66	.64	.62	.61	.59	.56	.54	.51	
	801	822	841	858	873	886	898	906	912	916	917	916	912	906	906	906	897	885	871	854	830	807	782	753	722	689
1500	.57	.59	.61	.62	.63	.64	.66	.66	.67	.67	.67	.66	.67	.67	.66	.66	.65	.64	.62	.60	.59	.56	.54	.52	.49	
	771	793	812	829	845	858	871	879	885	889	889	889	885	879	870	858	844	827	803	779	753	725	693	659		
15	.55	.57	.58	.60	.61	.62	.63	.64	.65	.65	.65	.65	.65	.64	.64	.63	.61	.60	.58	.56	.54	.52	.49	.47		
	740	762	781	799	814	828	841	850	856	860	861	860	857	850	841	830	815	798	773	749	723	694	662	628		
30	.53	.54	.56	.57	.57	.60	.61	.62	.62	.63	.63	.63	.62	.62	.61	.60	.59	.58	.56	.54	.52	.49	.47	.44		
	707	729	749	767	782	796	810	819	825	829	831	830	826	820	811	799	784	767	742	718	691	661	629	594		
45	.50	.52	.53	.55	.56	.57	.58	.59	.60	.60	.60	.60	.60	.60	.60	.59	.58	.57	.55	.53	.51	.49	.47	.44	.42	
	672	694	715	733	749	763	777	786	793	797	799	798	794	788	779	767	752	734	709	684	657	627	594	559		
1600	.47	.49	.51	.52	.54	.55	.56	.57	.57	.58	.58	.59	.58	.57	.56	.55	.54	.53	.51	.49	.47	.44	.42	.39		
	636	658	679	697	714	728	743	752	759	763	765	764	761	754	745	733	718	700	674	643	621	591	558	522		
15	.44	.46	.48	.49	.51	.52	.53	.54	.55	.55	.55	.55	.55	.54	.54	.53	.51	.50	.48	.45	.44	.41	.39	.36		
	598	621	642	661	678	692	707	717	724	728	730	730	726	719	710	698	682	664	638	613	585	554	520	484		
30	.42	.43	.45	.47	.48	.49	.50	.51	.52	.52	.52	.52	.52	.52	.51	.50	.49	.47	.45	.43	.41	.39	.36	.33		
	559	583	604	623	640	655	670	680	687	692	694	693	690	683	674	661	646	627	600	575	543	515	481	445		
45	.39	.40	.42	.44	.45	.46	.48	.48	.49	.49	.50	.50	.49	.49	.49	.48	.47	.46	.44	.42	.40	.38	.36	.33	.30	
	520	543	565	584	602	617	633	643	650	655	657	656	655	646	636	624	608	589	562	535	507	475	441	404		

MAY-AUG 60 N TABLE 8-1 SOLAR PARAMETERS COS 2 / X0 (W/M**2.) *** SIGNIFIES COS 2 ** ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					DATE					AUG								
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30		
1700	.36	.37	.39	.41	.42	.43	.45	.46	.46	.47	.47	.45	.46	.45	.44	.43	.41	.39	.37	.35	.33	.30	.27	
	479	503	525	545	563	578	594	604	612	617	619	619	615	608	598	585	569	550	522	496	467	435	400	363
18	.33	.34	.36	.38	.39	.40	.42	.43	.43	.44	.44	.44	.44	.43	.42	.41	.40	.38	.36	.34	.32	.29	.27	.24
	438	462	484	505	523	539	555	565	573	578	581	580	576	569	559	546	530	510	482	455	426	393	358	320
30	.29	.31	.33	.35	.36	.37	.39	.40	.40	.41	.41	.41	.41	.40	.39	.38	.37	.35	.33	.31	.29	.26	.24	.21
	395	420	443	464	482	499	515	526	534	539	541	541	537	530	520	506	489	469	441	414	384	351	316	278
45	.26	.28	.30	.32	.33	.34	.36	.37	.37	.38	.38	.38	.38	.37	.36	.35	.34	.32	.30	.29	.25	.23	.20	.17
	353	379	402	423	442	458	475	486	494	500	502	501	497	490	480	466	449	429	400	372	342	309	273	234
1800	.23	.25	.27	.29	.30	.31	.33	.34	.34	.35	.35	.35	.35	.34	.33	.32	.31	.29	.27	.25	.22	.20	.17	.14
	311	337	360	382	401	418	435	446	454	460	462	461	457	450	439	425	408	387	358	331	300	266	230	191
15	.20	.22	.24	.26	.27	.28	.30	.31	.31	.32	.32	.32	.32	.31	.30	.29	.28	.26	.24	.22	.19	.17	.14	.11
	269	295	319	341	360	377	395	406	414	420	422	422	417	410	399	385	367	346	317	283	257	223	187	148
20	.17	.19	.21	.22	.24	.25	.27	.28	.28	.29	.29	.29	.29	.28	.27	.26	.25	.23	.21	.19	.16	.14	.11	.08
	227	253	277	300	320	337	355	366	375	380	383	382	378	370	359	345	327	305	275	247	215	181	144	104
45	.14	.16	.18	.19	.21	.22	.24	.25	.25	.26	.26	.26	.26	.25	.24	.23	.22	.20	.18	.15	.13	.10	.08	.05
	185	212	237	259	279	297	315	327	335	341	343	342	338	330	319	304	286	264	234	205	173	139	101	662
1900	.11	.13	.15	.16	.18	.19	.21	.22	.22	.23	.23	.23	.23	.22	.21	.20	.19	.17	.15	.12	.10	.07	.04	.01
	144	171	196	219	240	258	276	288	297	302	305	304	299	291	280	265	246	224	193	164	132	97	59	019
15	.08	.10	.12	.14	.15	.17	.18	.19	.20	.20	.20	.20	.20	.19	.18	.17	.16	.14	.12	.09	.07	.04	.01	.00
	104	131	157	180	201	219	239	250	258	264	266	265	261	253	241	226	207	184	153	124	91	56	18	00
20	.05	.07	.09	.11	.12	.14	.15	.16	.17	.17	.17	.17	.17	.16	.15	.14	.13	.11	.17	.16	.04	.01	.00	.00
	684	692	118	142	163	182	200	212	221	227	229	228	223	215	203	187	168	145	114	884	51	.016	000	000
45	.02	.04	.06	.08	.09	.11	.12	.13	.14	.14	.15	.14	.14	.13	.13	.11	.10	.08	.06	.03	.01	.00	.00	.00
	626	654	681	105	126	145	164	176	185	190	193	191	186	178	166	150	130	108	676	45	.012	000	000	000

MAY-AUG 60 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/MM**2.) *** SIGNIFIES' COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

NST	MAY					JUN					JUL					AUG							
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30	
2000	.00	.01	.03	.05	.07	.08	.10	.11	.12	.12	.11	.11	.10	.09	.07	.05	.03	.01	.00	.00	.00	.00	
	000	018	044	069	090	109	128	141	150	155	157	156	151	142	130	114	094	071	038	003	000	000	000
15	.00	.00	.01	.03	.04	.06	.07	.08	.09	.09	.09	.09	.08	.07	.06	.04	.03	.00	.00	.00	.00	.00	
	000	000	009	034	056	075	094	107	116	121	123	122	117	108	095	079	059	035	003	003	000	000	000
30	.00	.00	.00	.02	.03	.03	.05	.06	.07	.07	.07	.06	.06	.05	.03	.02	.00	.00	.00	.00	.00	.00	
	000	000	000	001	023	043	062	074	083	089	091	089	084	074	062	045	025	001	000	000	000	000	000
45	.00	.00	.00	.00	.01	.01	.02	.03	.04	.04	.05	.04	.04	.03	.02	.01	.00	.00	.00	.00	.00	.00	
	000	000	000	000	000	012	031	043	052	058	060	058	052	043	030	013	000	000	000	000	000	000	000
2100	.00	.00	.00	.00	.00	.00	.00	.01	.02	.02	.02	.02	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	
	000	000	000	000	000	000	002	014	023	029	031	029	023	013	000	000	000	000	003	000	000	000	000
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	000	000	000	000	000	000	000	000	000	001	003	01	000	000	000	000	000	000	000	000	000	000	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	000	000	000	000	000	000	000	000	000	003	000	000	000	000	000	000	000	000	000	000	000	000	

MAY-AUG 60 N TABLE 8-1 SOLAR PARAMETERS CGS Z X0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY *

*** SIGNIFIES CGS Z = 1.

NST	SEP					OCT					NOV					DEC				
	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25
0500 .00	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15 .01 .00	019	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30 .05 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00	062	029	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45 .08 .05 .03 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00	106	073	040	006	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
0600 .11 .09 .06 .04 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00	150	117	084	050	016	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15 .14 .12 .10 .07 .04 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00	193	161	128	095	060	025	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30 .18 .15 .13 .10 .08 .05 .03 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00	237	205	172	139	105	070	034	000	000	000	000	000	000	000	000	000	000	000	000	000
45 .21 .18 .16 .13 .11 .08 .06 .03 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00	280	248	216	182	148	113	078	042	006	000	000	000	000	000	000	000	000	000	000	000
0700 .24 .22 .19 .17 .14 .11 .09 .06 .04 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00	323	291	259	225	191	156	121	085	049	012	000	000	000	000	000	000	000	000	000	000
15 .27 .25 .22 .20 .17 .15 .12 .09 .07 .04 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00	364	333	301	268	233	198	163	127	090	054	018	000	000	000	000	000	000	000	000	000
30 .30 .28 .25 .23 .20 .18 .15 .12 .10 .07 .04 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00	405	374	342	309	275	240	204	168	131	094	058	022	000	003	000	000	000	000	000	000
45 .33 .31 .28 .26 .23 .20 .18 .15 .12 .10 .07 .04 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00	445	414	382	349	314	279	244	207	170	134	097	061	019	003	000	000	000	000	000	000

SEP-DEC 60 N TABLE B-1 SOLAR PARAMETERS COS Z
X0 (W/M**2.) PREVIOUS PAGE IS BLANK

*** SIGNIFIES CCS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

C

NST	SEP					OCT					NOV					DEC				
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25
0800	.36	.34	.31	.29	.26	.23	.21	.18	.15	.12	.10	.07	.04	.02	.00	.00	.00	.00	.00	.00
	484	453	420	387	353	318	282	245	208	171	135	098	056	022	000	000	000	000	000	000
15	.39	.38	.34	.31	.29	.26	.23	.21	.18	.15	.12	.10	.07	.04	.02	.00	.00	.00	.00	.00
	521	490	458	424	390	355	319	282	245	208	171	134	091	057	025	000	000	000	000	000
30	.41	.39	.36	.34	.31	.29	.26	.23	.20	.18	.15	.12	.09	.07	.04	.02	.00	.00	.00	.00
	556	525	493	460	425	390	354	317	279	242	205	168	125	091	059	028	001	000	000	000
45	.44	.41	.39	.36	.34	.31	.28	.25	.23	.20	.17	.14	.11	.09	.07	.04	.02	.01	.00	.00
	590	559	527	493	459	423	387	350	312	274	237	200	157	123	090	060	032	008	000	000
600	.46	.44	.41	.39	.36	.33	.31	.28	.25	.22	.19	.17	.13	.11	.09	.06	.04	.03	.01	.00
	621	591	558	525	490	454	418	380	343	305	267	230	187	153	120	090	062	038	016	000
15	.48	.46	.43	.41	.38	.36	.33	.30	.27	.24	.21	.19	.15	.13	.11	.08	.06	.05	.03	.02
	651	620	588	554	519	483	446	409	371	333	295	258	215	180	148	118	090	065	044	027
30	.50	.48	.45	.43	.40	.37	.35	.32	.29	.26	.23	.20	.17	.15	.12	.10	.08	.07	.05	.04
	679	648	615	581	546	510	473	435	397	359	321	284	240	206	173	143	115	091	070	053
45	.52	.50	.47	.45	.42	.39	.36	.33	.31	.28	.25	.22	.19	.16	.14	.12	.10	.08	.07	.06
	704	673	640	606	571	534	497	459	421	382	344	307	263	229	196	166	139	114	094	077
1000	.54	.51	.49	.46	.44	.41	.38	.35	.32	.29	.26	.24	.23	.18	.16	.13	.11	.10	.08	.07
	727	693	663	628	593	556	519	480	442	403	365	327	284	249	217	187	159	135	115	093
15	.55	.53	.50	.48	.45	.42	.39	.36	.33	.31	.28	.25	.22	.19	.17	.15	.13	.11	.10	.08
	747	718	683	648	612	575	538	499	460	422	383	345	302	267	235	205	178	154	134	117
30	.57	.54	.52	.49	.46	.43	.40	.38	.35	.32	.29	.26	.23	.20	.18	.16	.14	.12	.11	.10
	765	733	700	665	629	592	554	515	476	437	399	361	317	282	250	220	193	170	150	134
45	.58	.55	.53	.50	.47	.44	.41	.38	.36	.33	.30	.27	.24	.21	.19	.17	.15	.13	.12	.11
	780	748	715	680	643	606	567	529	489	450	411	373	330	295	263	233	206	183	163	148

SEP-DEC 60 N

TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.)

*** SIGNIFIES COS Z **1.
ADD 1000 TO VALUES PRECEDED BY *

MST	DATE											
	5	10	15	20	25	30	5	10	15	20	25	
1100	.59	.56	.54	.51	.48	.45	.42	.39	.36	.33	.30	.28
	793	761	727	691	655	617	578	539	499	460	421	383
15	.60	.57	.54	.52	.49	.46	.43	.40	.37	.34	.31	.28
	803	770	736	700	663	625	586	547	507	467	428	390
30	.60	.57	.55	.52	.49	.46	.43	.40	.37	.34	.31	.28
	809	777	742	706	669	630	591	551	511	472	432	394
45	.60	.58	.55	.52	.49	.46	.43	.40	.37	.34	.31	.28
	813	780	745	709	671	633	593	553	513	473	434	395
1200	.60	.58	.55	.52	.49	.46	.43	.40	.37	.34	.31	.28
	815	781	746	709	671	632	592	552	511	471	432	394
15	.60	.58	.55	.52	.49	.46	.43	.40	.37	.34	.31	.28
	813	779	744	706	668	629	588	548	507	467	427	389
30	.60	.57	.55	.52	.49	.46	.42	.39	.36	.33	.30	.28
	808	774	738	701	662	622	582	541	500	460	420	382
45	.59	.57	.54	.51	.48	.45	.42	.39	.36	.33	.30	.27
	801	766	730	692	653	613	572	531	490	449	410	371
1300	.59	.56	.53	.50	.47	.44	.41	.38	.35	.32	.29	.26
	791	756	719	681	641	601	560	518	477	436	397	353
15	.58	.55	.52	.49	.46	.43	.40	.37	.34	.30	.28	.25
	778	742	705	667	627	586	544	503	461	421	381	342
30	.57	.54	.51	.48	.45	.42	.38	.35	.32	.29	.26	.23
	762	726	689	650	609	568	527	485	443	402	362	324
45	.55	.52	.49	.46	.43	.40	.37	.34	.31	.28	.25	.22
	744	708	670	630	590	549	506	464	422	381	341	303

SEP-DEC 60 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.)

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					NOV					DEC							
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30	
1400	.54	.51	.48	.45	.42	.38	.35	.32	.29	.26	.23	.20	.17	.15	.12	.10	.09	.07	.06	.05	.05	.06	
	723	686	648	608	567	525	483	440	399	357	317	279	236	203	173	147	124	105	090	079	073	075	
15	.52	.49	.46	.43	.40	.37	.33	.30	.27	.24	.21	.18	.15	.13	.11	.09	.07	.06	.05	.04	.04	.04	
	700	663	624	583	542	500	457	415	373	331	291	253	210	178	148	122	099	080	066	053	050	049	
30	.50	.47	.44	.41	.38	.35	.31	.28	.25	.22	.19	.16	.13	.11	.09	.07	.05	.04	.03	.02	.02	.03	
	674	636	597	556	515	472	429	387	344	303	263	225	182	150	120	094	072	054	040	030	025	024	
45	.48	.45	.42	.39	.36	.32	.29	.26	.23	.20	.17	.14	.11	.09	.07	.05	.03	.02	.01	.00	.00	.01	
	646	608	568	527	485	442	399	356	314	272	233	195	152	120	93	021	065	043	025	011	002	000	010
1500	.46	.43	.40	.37	.33	.30	.27	.24	.20	.17	.14	.12	.09	.06	.04	.02	.01	.00	.00	.00	.00	.00	
	616	578	537	496	453	410	367	324	281	240	200	162	120	088	059	033	012	000	000	000	000	000	
15	.43	.40	.37	.34	.31	.28	.24	.21	.18	.15	.12	.09	.06	.04	.02	.00	.00	.00	.00	.00	.00	.00	
	584	545	504	463	420	376	333	289	247	205	165	128	086	054	025	000	000	000	000	000	000	000	
30	.41	.38	.35	.31	.28	.25	.22	.18	.15	.12	.09	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	
	550	511	470	427	384	340	297	253	211	169	129	92	050	018	000	000	000	000	000	000	000	000	
45	.38	.35	.32	.29	.25	.22	.19	.16	.13	.10	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	514	474	433	390	347	303	259	215	173	131	092	054	012	000	000	000	000	000	000	000	000	000	
1600	.35	.32	.29	.26	.23	.19	.16	.13	.10	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	477	437	395	352	308	264	220	176	133	092	052	015	000	000	000	000	000	000	000	000	000	000	
15	.33	.29	.26	.23	.20	.16	.13	.10	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	438	398	355	312	268	224	179	135	093	051	012	000	000	000	000	000	000	000	000	000	000	000	
30	.30	.26	.23	.20	.17	.13	.10	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	398	357	315	271	227	182	138	094	051	010	000	000	000	000	000	000	000	000	000	000	000	000	
45	.27	.23	.20	.17	.14	.10	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	357	316	273	229	184	140	095	051	008	000	000	000	000	000	000	000	000	000	000	000	000	000	

SEP-DEC 60 N

TABLE B-1 SOLAR PARAMETERS

COS Z
X0 (W/m²*2.)*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					NOV					DEC						
	5	10	15	20	30	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30
1700	.23	.20	.17	.14	.10	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	315	273	230	186	141	096	052	008	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.20	.17	.14	.11	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	272	230	187	143	098	052	008	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.17	.14	.11	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	229	187	143	098	053	008	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.14	.11	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	186	143	099	054	009	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
1800	.11	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	142	099	055	010	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	098	055	011	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	054	011	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	011	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

SEP-DEC 60 N TABLE B-1 SOLAR PARAMETERS $\cos Z$
 x_0 (m/m^2)

*** SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY *

MST	1	5	10	15	20	25	30	DATE						APR						
								5	10	15	20	25	30	5	10	15	20	25	30	
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
0600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
0700	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	
15	.00	.00	.00	.00	.00	.00	.00	.01	.03	.05	.07	.10	.14	.16	.19	.22	.24	.27	.30	
30	.01	.01	.01	.01	.02	.03	.04	.06	.08	.10	.12	.14	.18	.21	.24	.26	.29	.32	.35	
45	.05	.05	.06	.06	.07	.09	.11	.12	.14	.17	.19	.23	.26	.28	.31	.34	.36	.39	.42	
	071	071	074	080	091	105	123	148	173	201	231	263	316	354	390	426	462	497	537	563

JAN-APR 40 N TABLE B-1

... SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

PREVIOUS PAGE
IS BLANK

MST	DATE										APR									
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0800	.09	.09	.10	.11	.12	.13		.15	.17	.19	.21	.23		.27	.30	.33	.35	.38	.41	
	129	129	133	140	151	166	184	210	215	263	254	326	381	417	453	488	524	558	597	623
15	.13	.13	.14	.15	.16	.17		.19	.21	.23	.25	.28		.32	.34	.37	.40	.42	.45	
	185	186	190	197	209	224	243	270	295	324	354	387	442	477	513	549	583	617	656	683
30	.17	.17	.17	.18	.19	.20	.21	.23	.25	.27	.30	.32		.35	.39	.41	.44	.47	.49	
	239	240	244	252	265	280	300	327	353	382	413	445	503	535	571	606	641	674	712	741
45	.21	.21	.21	.22	.23	.24	.25	.27	.29	.31	.33	.36		.40	.42	.45	.48	.51	.53	
	290	291	296	305	318	334	354	382	408	437	468	501	556	591	626	661	695	728	765	794
0900	.24	.24	.25	.26	.27	.29		.31	.33	.35	.37	.40		.44	.46	.49	.52	.54	.57	
	338	340	346	355	368	385	406	434	461	490	521	554	609	644	679	713	747	779	816	843
15	.27	.27	.28	.28	.29	.31	.32	.34	.36	.39	.41	.43		.47	.50	.53	.55	.58	.60	
	384	386	392	402	416	434	454	483	511	540	571	604	658	694	728	762	795	827	863	891
30	.30	.30	.31	.32	.33	.34	.35	.36	.40	.42	.44	.47		.51	.53	.56	.59	.61	.64	
	426	428	435	446	461	479	500	529	557	587	618	651	706	740	774	808	841	872	907	934
45	.33	.33	.34	.34	.36	.37	.38	.41	.43	.45	.47	.50		.54	.56	.59	.62	.64	.67	
	465	468	475	487	502	520	542	572	600	630	662	695	749	783	817	850	882	913	947	974
1000	.35	.36	.36	.37	.38	.40	.41	.43	.46	.48	.50	.53		.57	.59	.62	.64	.67	.69	
	500	504	512	524	539	559	581	611	640	670	702	735	782	823	856	889	920	950	984	984
15	.38	.38	.39	.39	.41	.42	.44	.46	.48	.50	.53	.55		.59	.62	.64	.67	.69	.72	
	532	536	544	557	573	593	616	647	675	706	738	771	825	858	891	924	955	984	984	984
30	.40	.40	.41	.42	.43	.44	.46	.48	.50	.53	.55		.62	.64	.67	.69	.72	.74	.76	
	559	564	573	587	604	624	647	679	707	738	770	803	856	890	923	954	985	014	046	071
45	.41	.42	.42	.43	.45	.46	.48	.50	.52	.55	.57	.60		.64	.66	.69	.71	.73	.76	
	583	588	599	612	630	651	674	706	735	766	798	831	884	917	950	981	011	039	071	095

JAN-APR 40 N TABLE 8-1 SOLAR PARAMETERS

COS Z⁻¹
X0 (W/m²*2.)*** SIGNIFIES COS Z⁻¹.
ADD 1000 TO VALUES PRECEDED BY *

MST	DATE												APR											
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25
1100	.43	.43	.44	.45	.46	.48	.50	.52	.54	.56	.59	.61	.65	.68	.70	.73	.75	.77	.80	.82	.84	.85	.87	.88
	603	609	620	634	652	673	698	730	759	790	822	855	903	.910	.972	.003	.033	.061	.091	.115	.136	.155	.172	.187
15	.44	.44	.45	.46	.47	.49	.51	.53	.55	.58	.60	.63	.67	.69	.72	.74	.76	.79	.81	.83	.85	.86	.88	.89
	619	625	637	652	670	692	717	749	779	810	842	874	927	.959	.991	.021	.050	.078	.108	.131	.152	.170	.187	.201
30	.45	.45	.46	.47	.48	.50	.52	.54	.57	.59	.61	.64	.68	.70	.73	.75	.77	.79	.82	.84	.86	.87	.89	.90
	630	637	649	665	684	706	731	764	794	825	857	890	942	.974	.005	.035	.063	.090	.120	.142	.163	.181	.197	.211
45	.45	.46	.47	.48	.49	.51	.53	.55	.57	.60	.52	.65	.68	.71	.73	.76	.78	.80	.82	.84	.86	.88	.89	.90
	638	645	658	674	694	716	742	775	805	836	868	900	952	.994	.015	.044	.072	.098	.127	.143	.159	.187	.203	.216
1200	.45	.46	.47	.48	.49	.51	.53	.56	.58	.60	.63	.65	.69	.71	.74	.76	.78	.80	.83	.84	.85	.88	.89	.90
	641	649	662	679	699	722	748	781	811	843	874	907	959	.990	.020	.049	.076	.102	.130	.152	.171	.189	.204	.218
15	.45	.46	.47	.48	.50	.51	.53	.56	.58	.60	.63	.65	.69	.71	.74	.76	.78	.80	.83	.81	.85	.87	.89	.90
	640	648	662	679	700	723	749	783	813	845	876	909	960	.991	.020	.049	.076	.101	.129	.153	.165	.186	.201	.215
30	.45	.45	.47	.48	.49	.51	.53	.55	.58	.60	.62	.65	.68	.71	.73	.76	.78	.80	.82	.84	.86	.87	.88	.90
	634	643	657	675	696	720	747	781	811	842	874	906	956	.987	.016	.045	.071	.096	.123	.144	.163	.179	.194	.207
45	.44	.45	.46	.47	.49	.51	.52	.55	.57	.60	.62	.64	.68	.71	.73	.75	.77	.79	.81	.83	.85	.86	.87	.89
	625	634	649	667	689	713	739	774	804	835	867	899	940	.979	.008	.036	.062	.086	.113	.133	.152	.168	.183	.196
1300	.43	.44	.45	.46	.48	.50	.52	.54	.56	.59	.61	.64	.67	.70	.72	.74	.76	.78	.80	.82	.84	.85	.86	.88
	611	620	636	655	676	701	728	762	793	824	855	887	937	.956	.995	.022	.048	.072	.098	.115	.133	.153	.172	.180
15	.42	.43	.44	.45	.47	.49	.51	.53	.55	.58	.60	.62	.65	.68	.71	.73	.75	.77	.79	.81	.82	.84	.85	.86
	593	603	619	638	660	685	712	747	777	808	833	871	927	.951	.971	.005	.030	.053	.079	.091	.117	.133	.148	.160
30	.40	.41	.42	.44	.45	.47	.49	.52	.54	.56	.59	.61	.65	.67	.69	.71	.73	.75	.77	.79	.80	.82	.83	.84
	571	581	598	617	640	665	692	727	757	788	819	850	891	.929	.956	.962	.007	.031	.056	.071	.071	.109	.124	.137
45	.39	.39	.40	.42	.44	.45	.47	.50	.52	.54	.57	.59	.63	.65	.67	.69	.71	.73	.75	.77	.79	.80	.81	.82
	545	556	572	592	615	640	668	703	733	764	795	826	874	.902	.930	.956	.981	.004	.029	.043	.057	.081	.096	.109

JAN-APR 40 N TABLE B-1 SOLAR PARAMETERS $\cos^2 Z = 1$
 $X_0 (\text{W/m}^2 \cdot \text{sr}^{-2})$ ADD 1000 TO VALUES PRECEDED BY .

MST	JAN										FEB										MAR										APR									
	1	5	10	15	20	25	30	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30						
1400	.36	.37	.38	.40	.42	.43	.45	.48	.50	.52	.55	.57	.61	.63	.65	.67	.69	.71	.73	.75	.76	.77	.79	.80	997	016	034	050	064	077										
	515	526	543	563	587	612	639	674	704	735	766	797	844	873	900	926	950	972	962	981	983	984	985	986	987	997	016	034	050	064	077									
15	.34	.35	.36	.38	.39	.41	.43	.46	.48	.50	.52	.55	.58	.60	.63	.65	.67	.68	.70	.72	.73	.75	.76	.77	962	981	983	014	029	042										
	481	493	510	531	554	580	607	642	672	703	733	764	811	839	856	891	915	937	923	942	959	975	990	003	014	029	042	058	071	072	073	074	080							
30	.31	.32	.34	.35	.37	.39	.41	.43	.45	.48	.50	.52	.56	.58	.60	.62	.64	.65	.68	.71	.72	.73	.74	960	981	983	014	029	042											
	444	456	474	494	518	544	571	606	636	666	697	727	773	801	822	853	876	899	890	916	933	947	961	980	981	983	984	985	986	987	988	989	990	991						
45	.29	.29	.31	.32	.34	.36	.39	.40	.42	.45	.47	.49	.53	.55	.57	.59	.61	.62	.64	.65	.67	.69	.70	.71	960	981	983	014	029	042										
	403	415	433	455	478	504	532	566	596	626	656	686	732	760	786	811	834	856	857	876	893	916	933	947	961	980	981	983	984	985	986	987	988	989	990	991				
1500	.25	.26	.28	.29	.31	.33	.35	.37	.39	.42	.44	.46	.49	.52	.54	.55	.57	.59	.61	.63	.64	.65	.67	.68	934	953	971	987	997	002										
	359	372	390	411	435	461	488	523	553	583	612	642	688	715	741	765	788	810	834	853	871	887	902	916	934	953	971	987	997	002										
15	.22	.23	.24	.26	.28	.29	.31	.34	.36	.38	.40	.43	.45	.48	.50	.52	.54	.55	.57	.59	.60	.62	.63	.64	785	804	821	838	853	867										
	312	325	344	365	389	415	442	476	506	536	565	594	632	665	692	716	739	761	785	804	821	838	853	867	885	904	921	938	953	967										
30	.19	.19	.21	.22	.24	.26	.28	.30	.32	.35	.37	.39	.42	.44	.46	.48	.50	.52	.54	.55	.57	.58	.59	.61	733	752	769	786	801	816										
	262	275	294	316	339	365	392	427	456	485	515	544	588	615	640	664	687	709	733	752	769	786	801	816	844	863	882	901	920	935										
45	.15	.16	.17	.19	.20	.22	.24	.27	.29	.31	.33	.35	.39	.40	.42	.44	.46	.48	.50	.51	.53	.54	.55	.57	678	697	715	732	747	762										
	210	223	242	263	287	313	340	374	403	432	461	490	534	560	586	610	632	654	678	697	715	732	747	762	781	800	819	838	857	876										
1600	.11	.12	.13	.15	.16	.18	.20	.23	.25	.27	.29	.31	.34	.36	.38	.40	.42	.43	.45	.47	.48	.50	.51	.52	621	640	658	675	691	706										
	155	168	187	209	232	258	285	319	348	376	405	433	477	503	528	552	575	596	621	640	658	675	691	706	731	750	768	786	804	823										
15	.07	.08	.09	.11	.12	.14	.16	.19	.21	.23	.25	.27	.30	.32	.34	.36	.37	.39	.41	.43	.44	.45	.47	.48	561	580	598	616	632	648										
	098	111	130	152	175	201	228	261	290	318	347	375	418	444	459	492	515	536	499	518	537	555	572	588	618	637	656	675	694	713										
30	.03	.04	.05	.07	.08	.10	.12	.14	.16	.18	.20	.22	.26	.28	.29	.31	.33	.35	.37	.38	.40	.41	.42	.44	499	518	537	555	572	588										
	039	052	071	093	116	141	168	201	229	258	286	313	356	382	407	430	453	474	499	518	537	555	572	588	618	637	656	675	694	713										
45	.00	.00	.01	.02	.04	.06	.08	.10	.12	.14	.16	.18	.21	.23	.25	.27	.28	.30	.32	.33	.35	.36	.38	.39	435	455	474	492	510	526										
	000	000	010	032	055	080	107	139	167	195	223	250	293	318	343	366	389	411	435	455	474	492	510	526	556	575	594	613	632	651										

JAN-APR 40 N TABLE B-1 SOLAR PARAMETERS COS Z =¹
² SIGNIFIES COS Z =¹
³ ADD 1000 TO VALUES PRECEDED BY *

MST	DATE										APR									
	1	5	10	15	JAN	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1700	.00	.00	.00	.00	.01	.03			.05	.07	.09	.11	.13		.16	.18	.20	.22	.24	.25
	000	000	000	000	000	017	043		076	103	131	158	185		228	253	277	301	324	345
15	.00	.00	.00	.00	.00	.00			.01	.03	.05	.07	.09		.12	.13	.15	.17	.19	.20
	000	000	000	000	000	000			011	038	065	092	119		161	186	211	234	257	279
30	.00	.00	.00	.00	.00	.00			.00	.00	.00	.02	.04		.07	.09	.10	.12	.14	.15
	000	000	000	000	000	000			000	000	000	025	052		093	118	143	166	189	211
45	.00	.00	.00	.00	.00	.00			.00	.00	.00	.00	.00		.02	.04	.05	.07	.09	.10
	000	000	000	000	000	000			000	000	000	000	000		025	050	074	098	121	143
1800	.00	.00	.00	.00	.00	.00			.00	.00	.00	.00	.00		.00	.00	.00	.02	.04	.05
	000	000	000	000	000	000			000	000	000	000	000		000	000	005	029	052	074
15	.00	.00	.00	.00	.00	.00			.00	.00	.00	.00	.00		.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000			000	000	000	000	000		000	000	000	000	000	006
30	.00	.00	.00	.00	.00	.00			.00	.00	.00	.00	.00		.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000			000	000	000	000	000		000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00			.00	.00	.00	.00	.00		.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000			000	000	000	000	000		000	000	000	000	000	000

JAN-APR 40 N TABLE B-1 SOLAR PARAMETERS $\cos Z_{x_0}$ ($w/m^2 \cdot 2$)

* SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

MST	MAY					JUN					JUL					AUG				
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	5	10	15	20	30
0400	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.00	.00	.00	.00	.01	.02	.02	.03	.03	.02	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00
0500	.00	.01	.03	.04	.05	.06	.07	.07	.07	.07	.06	.05	.05	.04	.03	.01	.00	.00	.00	.00
15	.04	.06	.08	.09	.10	.11	.11	.12	.12	.11	.11	.10	.09	.08	.07	.06	.05	.03	.01	.00
30	.09	.11	.12	.14	.15	.15	.16	.16	.16	.16	.15	.15	.14	.13	.12	.10	.09	.08	.05	.03
45	.14	.16	.17	.18	.19	.20	.21	.21	.21	.20	.20	.19	.18	.17	.16	.15	.14	.12	.11	.08
0600	.19	.20	.22	.23	.24	.25	.25	.25	.25	.24	.24	.23	.22	.21	.20	.19	.17	.15	.14	.12
15	.24	.25	.27	.28	.29	.29	.30	.30	.30	.29	.29	.24	.28	.27	.26	.25	.23	.22	.21	.19
30	.28	.30	.31	.32	.33	.34	.34	.35	.35	.34	.34	.33	.32	.31	.30	.29	.28	.27	.25	.23
45	.33	.35	.36	.37	.38	.38	.39	.39	.39	.39	.38	.37	.37	.36	.35	.34	.33	.31	.30	.26
0630	.253	.274	.292	.306	.318	.327	.333	.336	.336	.334	.329	.322	.313	.303	.291	.277	.263	.247	.228	.213
15	.316	.338	.355	.369	.381	.389	.395	.397	.397	.394	.390	.383	.374	.364	.352	.339	.325	.310	.291	.273
30	.383	.402	.418	.432	.443	.450	.456	.458	.458	.455	.456	.444	.435	.425	.414	.401	.388	.373	.355	.332
45	.446	.465	.481	.494	.504	.512	.517	.519	.518	.515	.511	.504	.496	.486	.475	.463	.450	.436	.418	.402

MAY-AUG 40 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (4/40*2.) PREVIOUS PAGE IS BLANK

* = SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

MST	MAY					JUN					JUL					AUG					
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30					
0700	.38	.39	.41	.42	.43	.43	.44	.44	.43	.43	.42	.41	.40	.39	.37	.36	.34	.33	.31	.30	
500	527	543	555	565	572	577	578	578	575	570	564	556	546	536	524	511	497	480	465	450	434
15	.42	.44	.45	.46	.47	.47	.48	.48	.48	.47	.46	.46	.45	.44	.43	.42	.41	.41	.40	.39	.35
571	589	603	615	624	631	636	637	636	633	623	622	614	605	595	584	571	558	542	527	512	497
30	.47	.48	.50	.51	.52	.52	.52	.52	.52	.51	.51	.50	.49	.48	.47	.45	.43	.43	.42	.41	.39
631	648	663	674	683	689	693	694	693	690	686	660	672	663	653	642	631	618	602	587	573	558
45	.51	.53	.54	.55	.56	.56	.57	.57	.56	.56	.55	.54	.54	.53	.52	.51	.50	.49	.47	.46	.44
690	706	720	731	739	745	749	750	749	746	742	736	728	720	710	700	688	676	661	647	633	618
0800	.56	.57	.58	.59	.60	.60	.61	.61	.60	.60	.60	.59	.59	.58	.57	.56	.55	.54	.53	.52	.51
747	763	776	786	794	799	803	804	803	800	796	790	783	775	765	755	744	733	718	705	691	677
15	.60	.61	.62	.63	.64	.64	.65	.64	.64	.64	.64	.63	.63	.62	.61	.60	.59	.58	.57	.56	.54
801	817	829	839	847	852	855	856	855	852	843	842	835	827	819	809	798	787	773	763	747	733
30	.63	.65	.66	.67	.67	.68	.68	.68	.68	.68	.67	.67	.66	.66	.65	.64	.63	.62	.61	.60	.58
854	868	880	890	897	902	905	906	904	902	898	892	886	879	870	860	850	839	825	813	803	786
45	.67	.68	.69	.70	.71	.71	.72	.72	.72	.71	.71	.71	.70	.69	.69	.68	.67	.66	.65	.64	.60
903	917	929	938	945	949	952	953	952	949	945	940	934	926	918	909	900	889	876	864	851	838
0900	.71	.72	.73	.74	.75	.75	.75	.75	.75	.75	.74	.74	.73	.72	.71	.71	.71	.70	.69	.68	.64
950	963	974	983	990	994	997	997	996	994	990	985	973	972	974	956	947	936	923	912	909	896
15	.74	.75	.76	.77	.77	.78	.78	.78	.78	.78	.78	.77	.77	.76	.75	.75	.74	.73	.72	.70	.67
993	*006	*017	*025	*032	*036	*039	*039	*038	*036	*032	*027	*022	*015	*008	*000	991	981	968	957	945	932
30	.77	.78	.79	.80	.81	.81	.81	.81	.81	.81	.81	.80	.80	.80	.79	.79	.78	.77	.76	.75	.73
45	.80	.81	.82	.82	.83	.83	.84	.84	.84	.84	.83	.83	.83	.83	.82	.81	.80	.80	.79	.78	.77
	*071	*083	*093	*101	*105	*110	*113	*113	*110	*107	*103	*113	*113	*113	*110	*107	*103	*093	*092	*085	*078

MAY-AUG 40 N TABLE B-1 SOLAR PARAMETERS $\cos^2 x_0$ (W/M**2.)

*** SIGNIFIES $\cos^2 x_1$.

ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					AUG													
	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30							
1000	.82	.83	.84	.85	.85	.86	.86	.86	.86	.86	.86	.85	.85	.84	.83	.82	.81	.79	.78	.77	.76			
	*104*116*125*133*139*143					*145*146*145*143*140*136						*131*126*119*112*104*095					*084*073*061*048*034*019							
15	.84	.85	.86	.87	.88	.88	.88	.88	.88	.88	.88	.87	.87	.86	.85		.84	.83	.82	.81	.80	.78		
	*134*145*155*162*167*171					*174*174*174*172*169*166						*161*156*150*143*135*127					*115*104*103*080*066*050							
30	.86	.87	.88	.89	.89	.90	.90	.90	.90	.90	.90	.90	.90	.89	.88	.87	.86	.85	.84	.83	.82	.80		
	*160*171*180*187*192*196					*199*199*199*197*195*192						*187*182*177*170*163*154					*143*132*121*108*094*078							
45	.88	.89	.90	.90	.91	.91	.92	.92	.92	.92	.92	.91	.91	.91	.90	.89	.88	.87	.86	.85	.83	.82		
	*182*192*201*208*213*217					*220*221*221*219*217*214						*210*205*200*193*186*178					*167*155*145*132*117*102							
1100	.89	.90	.91	.92	.92	.93	.93	.93	.93	.93	.93	.93	.93	.93	.92	.92	.91	.90	.89	.88	.87	.86	.83	
	*199*210*219*226*231*235					*237*238*238*237*235*232						*229*224*219*213*206*198					*187*177*165*152*137*121							
15	.90	.91	.92	.93	.93	.94	.94	.94	.94	.94	.94	.94	.94	.93	.93	.92	.91	.90	.90	.89	.87	.86	.85	
	*213*224*232*239*244*248					*251*252*252*251*250*247						*244*240*235*229*222*214					*203*193*181*168*153*136							
30	.91	.92	.93	.93	.94	.94	.95	.95	.95	.95	.95	.95	.95	.95	.94	.94	.93	.92	.91	.90	.89	.88	.87	.85
	*223*233*241*248*253*257					*260*262*262*262*260*258						*255*251*246*241*234*226					*215*205*193*179*164*147							
45	.91	.92	.93	.94	.94	.95	.95	.96	.96	.96	.96	.95	.95	.95	.94	.94	.93	.92	.91	.90	.89	.87	.86	
	*228*238*247*253*259*263					*266*268*268*268*265						*262*258*254*248*242*234					*223*212*200*187*171*154							
1200	.91	.92	.93	.94	.94	.95	.95	.96	.96	.96	.96	.95	.95	.95	.94	.94	.93	.92	.91	.90	.89	.88	.86	
	*229*239*248*254*260*264					*268*269*270*270*269*268						*265*252*253*252*246*238					*227*215*214*190*174*157							
15	.91	.92	.93	.94	.94	.95	.95	.95	.96	.96	.96	.95	.95	.95	.94	.94	.93	.92	.91	.90	.89	.87	.86	
	*226*236*244*251*257*261					*265*267*268*269*263*267						*264*261*257*252*245*238					*227*215*214*189*173*155							
30	.91	.92	.92	.93	.94	.94	.95	.95	.95	.95	.95	.95	.95	.95	.94	.94	.93	.92	.91	.90	.89	.87	.85	
	*219*229*237*244*250*254					*259*261*262*263*262						*260*257*253*247*241*233					*222*211*210*183*167*148							
45	.90	.91	.92	.92	.93	.93	.94	.94	.95	.95	.95	.94	.94	.93	.93	.92	.91	.90	.89	.88	.86	.85		
	*207*217*226*233*239*244					*248*251*253*253*253*253						*251*243*244*239*233*225					*213*202*193*174*157*138							

MAY-AUG 40 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/Y=*.2.) *** SIGNIFIES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY .

MST	MAY										JUN										JUL										AUG									
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30				
1300	.89	.90	.90	.91	.92	.92	*.93	.93	.93	.94	.94	.94	*.91	.93	.93	.93	.92	.91	*.90	.89	.88	.87	.85	.84	*.20	*.16	.17	.16	*.14	*.12										
	*192*202*210*217*224*229						*234*237*239*240*243*240						*235*232*227*220*212																											
15	.87	.88	.89	.90	.90	.91	*.91	.92	.92	.92	.92	.92	*.92	.92	.92	.91	.91	.90	*.89	.88	.87	.85	.84	.82	*.184	*.172	.158	.142	*.124	*.104										
	*172*182*191*198*205*210						*215*219*221*223*223*223						*221*219*215*210*204*196																											
30	.85	.86	.87	.88	.89	.89	*.90	.90	.90	.91	.91	.91	*.91	.91	.91	.90	.89	.88	*.87	.85	.85	.84	.82	.80	*.163*	*.150	.136	.120	*.101	*.080										
	*148*158*167*175*182*187						*193*197*200*201*202*202						*201*193*195*190*183*175																											
45	.83	.84	.85	.86	.87	.87	*.88	.88	.89	.89	.89	.89	*.83	.89	.88	.88	.87	.87	*.86	.84	.83	.82	.80	.78	*.138	*.125	.110	.094	*.074	*.053										
	*120*131*140*148*155*161						*167*171*174*177*178*178						*177*175*171*166*159*151																											
1400	.81	.82	.83	.84	.84	.85	*.86	.86	.86	.87	.87	.87	*.87	.87	.86	.86	.85	.85	*.83	.82	.81	.80	.78	.76	*.109	*.095	.081	.064	*.044	*.022										
	*089*100*109*111*125*131						*138*142*146*148*150*150						*149*147*143*138*131*122																											
15	.78	.79	.80	.81	.82	.82	*.83	.84	.84	.84	.84	.84	*.84	.84	.84	.84	.83	.82	*.81	.80	.79	.78	.77	.75	.73	*.077	*.064	.048	.030	*.010	.987									
	*054*065*075*083*091*098						*105*110*113*116*118*118						*118*116*112*107*100*091																											
30	.75	.76	.77	.78	.79	.80	*.80	.81	.81	.82	.82	.82	*.82	.82	.81	.81	.80	.79	*.78	.77	.76	.75	.74	.72	.71	*.042	*.023	.011	.993	972	948									
	*015*026*037*046*054*061						*069*074*078*081*083*084						*083*081*077*072*065*055																											
45	.72	.73	.74	.75	.76	.77	*.77	.78	.78	.79	.79	.79	*.79	.79	.78	.78	.77	.77	*.75	.74	.73	.71	.69	.67	*.002	.983	.971	.952	.930	.906										
	973 965 995*005*014*021						*029*035*039*043*045*046						*045*043*039*034*026*017																											
1500	.69	.70	.71	.72	.73	.73	*.74	.75	.75	.76	.76	.76	*.75	.75	.75	.74	.73	.73	*.72	.71	.70	.68	.66	.64	*.60	.945	.928	.908	.886	.861										
	928 940 951 961 970 978						*987 993 997*001*004*005						*004*002 998 993 985 975																											
15	.65	.67	.68	.68	.69	.70	*.71	.71	.72	.72	.73	.73	*.73	.72	.72	.72	.71	.70	*.69	.68	.66	.64	.63	.60	*.615	.893	.881	.861	.838	.813										
	880 893 904 914 924 932						*941 948 953 957 959 961						*960 958 954 948 940 930																											
30	.62	.63	.64	.65	.66	.66	*.67	.68	.69	.69	.69	.69	*.69	.69	.68	.68	.67	.66	*.65	.64	.62	.61	.59	.57	*.667	.851	.832	.811	.787	.761										
	830 842 854 865 875 884						*894 900 906 910 913 914						*914 912 908 901 893 883																											
45	.58	.59	.60	.61	.62	.63	*.63	.64	.65	.65	.65	.65	*.65	.65	.64	.64	.63	.63	*.61	.60	.58	.57	.55	.53	*.816	.793	.783	.758	.734	.707										
	776 789 802 813 824 833						*843 850 856 861 864 865						*865 863 858 852 843 832																											

MAY-AUG 40 N TABLE 8-1 SOLAR PARAMETERS COS^Z_{X0 (W/M*2.)} ADD 1000 TO VALUES PRECEDED BY + ^{** SIGNIFIES COS^Z_{=1.}}

MST	DATE											
	5	10	15	20	25	30	5	10	15	20	25	30
1600	.54	.55	.56	.57	.58	.59	.60	.61	.61	.61	.60	.59
1700	.721	.734	.747	.759	.770	.780	.791	.798	.804	.809	.812	.814
1800	.49	.50	.52	.53	.54	.54	.55	.56	.57	.57	.57	.57
1900	.663	.677	.691	.703	.714	.725	.736	.744	.750	.755	.759	.760
2000	.45	.46	.47	.48	.49	.50	.680	.688	.695	.700	.704	.705
2100	.604	.618	.632	.645	.657	.668	.622	.631	.638	.643	.647	.648
2200	.40	.42	.43	.44	.45	.46	.47	.48	.48	.49	.47	.46
2300	.543	.558	.572	.586	.598	.610	.563	.572	.579	.585	.589	.590
2400	.36	.37	.38	.39	.40	.41	.42	.43	.44	.44	.44	.45
2500	.480	.496	.511	.525	.538	.550	.590	.587	.582	.574	.563	.550
2600	.31	.32	.34	.35	.36	.37	.38	.39	.39	.39	.38	.37
2700	.417	.433	.449	.464	.477	.490	.503	.512	.520	.526	.529	.531
2800	.26	.28	.29	.30	.31	.32	.33	.34	.35	.35	.34	.36
2900	.353	.370	.386	.401	.415	.428	.442	.452	.459	.465	.469	.471
3000	.21	.23	.24	.25	.27	.28	.29	.29	.30	.31	.31	.31
3100	.288	.306	.322	.338	.353	.366	.381	.391	.399	.405	.409	.410
3200	.17	.18	.19	.21	.22	.23	.24	.25	.26	.26	.26	.26
3300	.223	.241	.259	.275	.290	.304	.319	.329	.338	.344	.348	.350
3400	.158	.177	.195	.212	.228	.242	.257	.268	.277	.283	.287	.289
3500	.12	.13	.15	.16	.17	.18	.19	.20	.21	.21	.21	.22
3600	.07	.08	.10	.11	.12	.14	.15	.16	.16	.17	.17	.17
3700	.094	.113	.132	.150	.166	.181	.196	.207	.216	.222	.226	.228
3800	.02	.04	.05	.07	.08	.09	.10	.11	.12	.12	.13	.13
3900	.030	.050	.069	.088	.104	.120	.135	.147	.156	.162	.166	.167
4000												

MAY-AUG 40 44 TABLE B-1 SOLAR PARAMETERS COS Z₀ (W/M**2.) *** SIGNIFIES COS Z = 1.
 MAY-AUG 40 44 DD 1000 TO VALUES PRECEDED BY .

MST	MAY										JUN										JUL										AUG									
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30																
1900	.00	.00	.01	.02	.03	.04	.06	.07	.08	.09	.08	.07	.05	.04	.05	.06	.07	.06	.05	.04	.02	.03	.02	.00	.00	.00	.00	.00	.00	.00										
	000	000	008	026	044	059	076	087	096	103	107	103	107	105	101	054	083	069	051	027	063	003	000	000	000	000	000	000	000	000	000									
15	.00	.00	.00	.00	.00	.00	.01	.02	.03	.03	.04	.04	.047	.042	.034	.023	.020	.000	.04	.03	.03	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
	000	000	000	000	000	000	017	028	038	044	048	049	047	042	034	023	008	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000						
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000					
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000					

MAY-AUG 40 N TABLE B-1 SOLAR PARAMETERS $\cos^2 x_0$ ($m/m^2 \cdot 2.$)

*** SIGNIFIES $\cos^2 = 1$
ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					NOV					DEC					
	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
0600	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
45	.04	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
047	027	006	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
0600	.09	.07	.06	.04	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
114	094	074	053	032	010	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
15	.13	.12	.11	.09	.07	.06	.04	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
30	.18	.17	.15	.14	.12	.11	.09	.07	.06	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	
45	.23	.22	.20	.19	.17	.16	.14	.12	.10	.09	.07	.05	.02	.01	.00	.00	.00	.00	.00	.00	
0700	.28	.27	.25	.24	.22	.20	.25	.23	.22	.20	.18	.16	.14	.12	.10	.08	.03	.01	.00	.00	
15	.33	.31	.30	.28	.27	.25	.321	.297	.272	.247	.221	.194	.161	.138	.108	.082	.059	.035	.014	.009	.000
30	.38	.36	.35	.33	.31	.30	.384	.360	.335	.309	.252	.255	.223	.195	.159	.143	.118	.096	.075	.055	.013
45	.42	.41	.39	.38	.36	.34	.45	.420	.395	.369	.342	.315	.282	.254	.226	.202	.177	.154	.133	.115	.078

SEP-DEC 40 N TABLE B-1 SOLAR PARAMETERS CCS Z = 1
 X0 (W/N=2.) *** SIGNIFIES CCS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY *

MST	DATE										DEC											
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10		
0800	.46	.45	.44	.42	.40	.39	.37	.35	.33	.31	.29	.27	.24	.22	.20	.18	.17	.15	.14	.12	.11	
	626	608	589	570	549	527	503	479	453	427	400	372	331	311	284	258	233	210	190	172	154	
15	.51	.49	.48	.46	.44	.43	.41	.39	.37	.35	.33	.31	.21	.23	.21	.22	.20	.19	.17	.15	.14	
	682	665	646	626	605	583	560	535	509	482	455	427	393	366	338	312	287	265	244	221	199	
30	.55	.53	.52	.50	.48	.47	.45	.43	.41	.39	.37	.35	.32	.30	.28	.26	.24	.22	.21	.19	.17	
	737	719	700	681	659	637	613	588	562	535	507	479	445	417	390	364	339	316	296	273	253	
45	.59	.57	.56	.54	.52	.50	.48	.46	.44	.42	.40	.38	.35	.32	.31	.29	.28	.26	.24	.23	.21	
	788	771	752	732	710	688	664	638	612	585	557	528	494	466	439	412	388	365	345	327	313	
0900	.62	.61	.59	.57	.56	.54	.52	.50	.48	.46	.44	.41	.31	.37	.35	.33	.31	.29	.28	.25	.24	
	837	819	800	780	759	736	711	686	659	631	603	574	549	512	484	458	433	411	391	373	359	
15	.66	.64	.62	.61	.59	.57	.55	.53	.51	.49	.47	.44	.42	.40	.38	.36	.34	.32	.31	.29	.27	
	883	865	846	825	803	780	755	729	702	675	646	617	582	554	526	500	476	453	433	417	403	
30	.69	.67	.66	.64	.62	.60	.58	.56	.54	.52	.49	.47	.45	.42	.40	.38	.37	.35	.34	.32	.30	
	925	907	888	867	845	821	796	770	742	714	685	656	621	593	565	539	515	493	473	455	433	
45	.72	.70	.68	.67	.65	.63	.61	.59	.57	.54	.52	.50	.47	.45	.43	.41	.39	.38	.36	.35	.33	
	964	945	926	905	882	858	833	806	779	750	721	692	657	626	601	574	550	528	509	493	450	
1000	.74	.73	.71	.69	.67	.65	.63	.61	.59	.57	.54	.52	.41	.47	.45	.43	.41	.40	.38	.37	.35	
	999	980	960	939	916	892	866	839	811	782	753	723	680	660	632	606	582	560	541	523	505	
15	.76	.75	.73	.71	.69	.67	.65	.63	.61	.59	.56	.54	.51	.49	.47	.45	.43	.42	.40	.39	.38	
	*030-011	991	969	946	921		895	868	839	810	781	751	715	687	650	634	610	588	570	555	535	
30	.78	.77	.75	.73	.71	.69	.67	.65	.63	.60	.58	.56	.53	.51	.49	.47	.45	.44	.42	.41	.39	
	*057-038-018	996	972	947		920	892	864	834	804	774	734	710	682	657	634	613		595	580	559	531
45	.80	.79	.77	.75	.73	.71	.69	.66	.64	.62	.59	.57	.54	.52	.50	.48	.47	.45	.44	.43	.41	
	*081-061-040-018	994	968		941	913	884	854	824	794		755	730	702	677	654	633		615	601	593	

SEP-DEC

40 N

TABLE B-1

SOLAR PARAMETERS

COS Z
Y0 (W/M**2.)

*** SIGNIFIES COS Z = 1.

ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					NOV					DEC					
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	
1100	.82	.80	.78	.76	.74	.72	.70	.68	.65	.63	.61	.58	.55	.53	.51	.49	.48	.46	.45	.41	.43
	*100	*080	*059	*036	*011	985	957	929	899	869	839	809	773	745	718	692	669	649	632	613	608
15	.83	.81	.79	.77	.75	.73	.71	.68	.66	.64	.61	.59	.56	.54	.52	.50	.48	.47	.46	.45	.41
	*114	*094	*073	*049	*024	997	969	940	911	880	850	819	784	755	728	703	681	661	644	631	621
30	.83	.82	.80	.78	.76	.74	.71	.69	.67	.64	.62	.59	.57	.55	.53	.51	.49	.48	.46	.43	.44
	*125	*104	*082	*058	*032	*005	977	948	917	887	856	826	790	762	735	710	688	669	652	640	631
45	.84	.82	.80	.78	.76	.74	.72	.69	.67	.64	.62	.50	.57	.55	.53	.51	.49	.48	.47	.43	.45
	*131	*110	*087	*063	*037	*009	980	950	920	889	858	827	792	764	737	713	691	672	656	644	631
1200	.84	.82	.80	.78	.76	.74	.71	.69	.67	.64	.62	.59	.57	.55	.53	.51	.49	.48	.47	.43	.45
	*133	*111	*088	*063	*036	*008	979	949	918	886	855	825	783	751	725	701	689	671	656	644	637
15	.84	.82	.80	.78	.76	.73	.71	.69	.66	.64	.61	.59	.56	.54	.52	.50	.49	.47	.46	.43	.45
	*130	*108	*084	*059	*031	*003	973	942	911	880	848	818	782	754	726	705	684	666	651	640	633
30	.83	.81	.79	.77	.75	.73	.70	.68	.65	.63	.60	.58	.55	.53	.51	.50	.48	.47	.46	.45	.44
	*123	*101	*076	*050	*022	993	963	932	900	868	837	806	771	743	718	694	674	656	642	632	626
45	.83	.81	.79	.76	.74	.72	.69	.67	.64	.62	.59	.57	.54	.52	.50	.48	.47	.46	.45	.44	.44
	*112	*089	*064	*037	*008	979	948	916	885	853	821	791	755	728	702	680	659	643	629	622	614
1300	.81	.79	.77	.75	.73	.70	.68	.65	.63	.60	.58	.55	.53	.51	.49	.47	.46	.44	.43	.43	.42
	*097	*073	*047	*019	990	960	929	897	865	833	801	770	735	705	682	651	625	612	603	598	599
15	.80	.78	.76	.73	.71	.69	.66	.64	.61	.59	.56	.54	.51	.49	.47	.45	.44	.43	.42	.41	.41
	*077	*052	*026	998	968	937	906	873	841	809	777	746	711	681	650	628	618	603	590	582	578
30	.78	.76	.74	.72	.69	.67	.64	.62	.59	.56	.54	.52	.49	.47	.45	.44	.42	.40	.39	.39	.39
	*053	*028	*000	972	942	910	878	845	813	780	749	718	683	656	632	610	592	577	565	557	554
45	.76	.74	.72	.69	.67	.64	.62	.59	.57	.54	.52	.49	.47	.45	.43	.41	.39	.38	.37	.37	.38
	*025	999	971	942	911	879	847	814	781	748	716	686	651	625	601	579	561	547	536	522	525

NST	DATE										NOV	DEC												
	5	10	15	20	25	30	5	10	15	20														
1400	.74	.72	.69	.67	.64	.62	.59	.57	.54	.52	.49	.47	.44	.42	.40	.39	.38	.36	.35	.35	.35	.36		
	993	966	938	908	877	844	811	778	745	712	680	649	615	589	565	545	527	513	503	495	494	495	509	
15	.71	.69	.66	.64	.62	.59	.56	.54	.51	.49	.46	.44	.41	.38	.36	.35	.34	.33	.35	.32	.33	.33	.34	
	957	930	901	870	838	805	772	738	705	672	640	610	576	550	527	506	489	476	466	465	458	460	466	475
30	.68	.66	.63	.61	.58	.56	.53	.51	.48	.46	.43	.41	.38	.36	.35	.33	.32	.31	.30	.30	.30	.30	.31	
	918	890	860	829	796	763	729	695	662	629	597	566	533	507	484	465	448	435	426	421	419	422	428	438
45	.65	.63	.60	.58	.55	.53	.50	.47	.45	.42	.40	.37	.35	.33	.31	.30	.29	.28	.27	.27	.27	.27	.28	
	875	846	816	784	751	717	683	649	615	582	550	520	485	.61	.459	.419	.404	.391	.382	.373	.377	.380	.387	.397
1500	.61	.59	.57	.54	.52	.49	.46	.44	.41	.39	.36	.34	.31	.30	.28	.27	.25	.24	.24	.24	.23	.24	.25	
	829	799	768	736	703	668	634	599	565	532	500	470	437	.412	.350	.371	.356	.344	.336	.332	.331	.335	.342	.353
15	.58	.55	.53	.50	.48	.45	.42	.40	.37	.35	.32	.30	.28	.26	.24	.23	.22	.21	.20	.20	.20	.20	.21	.22
	779	750	718	685	651	616	581	546	512	479	447	417	385	360	339	320	305	294	287	283	283	287	295	306
30	.54	.52	.49	.46	.44	.41	.38	.36	.33	.31	.28	.26	.24	.22	.20	.19	.18	.17	.17	.15	.16	.17	.18	
	727	697	665	631	596	561	526	491	457	423	392	362	330	305	284	266	252	241	234	231	232	236	244	256
45	.50	.47	.45	.42	.40	.37	.34	.32	.29	.26	.24	.22	.20	.18	.16	.15	.14	.13	.13	.13	.13	.14	.14	
	673	641	609	574	539	504	468	433	399	365	334	304	272	248	228	210	196	186	180	177	178	183	191	203
1600	.46	.43	.41	.38	.35	.33	.30	.27	.25	.22	.20	.18	.15	.14	.12	.11	.10	.09	.09	.09	.09	.09	.11	
	615	584	550	516	480	444	408	373	338	305	274	244	213	189	169	152	139	129	123	121	122	127	136	148
15	.41	.39	.36	.33	.31	.28	.25	.23	.20	.18	.15	.13	.11	.09	.07	.06	.05	.05	.04	.05	.05	.06	.06	
	556	524	490	455	419	382	346	311	276	243	212	182	151	128	109	92	79	70	664	662	654	670	679	691
30	.37	.34	.32	.29	.26	.23	.21	.18	.15	.13	.11	.09	.06	.05	.03	.02	.01	.01	.00	.00	.00	.01	.02	
	495	462	427	392	355	319	282	247	212	179	148	119	086	655	46	30	17	09	003	002	004	010	019	032
45	.32	.30	.27	.24	.21	.19	.16	.13	.11	.08	.06	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	432	398	363	327	291	254	217	181	147	114	053	054	023	001	000	000	000	000	000	000	000	000	000	

SEP-DEC

40 N

TABLE B-1

COS Z

X0 (W/RN*2.)

*** SIGNIFIES COS Z = 1.

ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					NOV					DEC				
	5	10	15	20	30	5	10	15	20	30	5	10	15	20	30	5	10	15	20	30
1700	.27	.25	.22	.19	.17	.14	.11	.08	.06	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00
	368	334	298	261	224	187	151	115	80	47	16	00	000	000	000	000	000	000	000	000
15	.22	.20	.17	.14	.12	.09	.06	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	302	268	232	195	157	120	083	047	012	000	000	000	000	000	000	000	000	000	000	000
30	.18	.15	.12	.09	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	236	201	164	127	90	52	015	000	000	003	000	000	000	000	000	000	000	000	000	000
45	.13	.10	.07	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	169	134	97	59	21	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
1800	.08	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	102	066	029	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	035	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

SEP-DEC 40 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (m/m**2.) *** SIGNIFIES COS Z = 1.
ACD 1000 TO VALUES PRECEDED BY *

MST	JAN					FEB					DATE					MAR					APR						
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	.04	.01		
0600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01		
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
45	.02	.02	.01	.01	.01	.02	.02	.03	.04	.05	.06	.07	.03	.04	.05	.06	.07	.10	.11	.13	.15	.17	.18	.21	.22		
031	025	020	018	018	021	027	037	049	064	080	099	037	049	064	080	099	133	156	160	204	229	253	280	302	322		
0700	.08	.07	.07	.07	.07	.07	.08	.09	.09	.10	.12	.13	.119	.132	.147	.164	.183	.217	.240	.264	.288	.312	.335	.362	.383	.402	
15	.13	.13	.13	.12	.13	.13	.13	.14	.15	.16	.18	.19	.200	.213	.228	.245	.265	.300	.322	.345	.370	.393	.416	.442	.463	.481	.498
30	.19	.18	.18	.18	.18	.18	.19	.20	.21	.22	.23	.25	.280	.293	.309	.327	.346	.381	.403	.427	.450	.473	.496	.521	.541	.558	.574
45	.24	.23	.23	.23	.23	.24	.24	.25	.26	.28	.29	.30	.357	.371	.387	.405	.425	.460	.483	.506	.529	.551	.573	.598	.617	.634	.649
335	331	328	328	331	336	344																					

JAN-APR 20 N TABLE B-1 SOLAR PARAMETERS CCS 2 X0 (W/M**2.)

... SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

PREVIOUS PAGE
IS BLANK

MST	1	5	10	15	20	25	30	DATE						APR											
								FEB			MAR			5			10			15			20		
0800	.29	.28	.28	.28	.29	.29	.30	.31	.32	.33	.34	.36	.35	.40	.42	.44	.46	.47	.49	.51	.52	.53	.54	.55	
406	403	400	401	404	410	419	433	447	464	482	502	537	556	582	605	627	648	672	693	703	721	733	743		
15	.34	.33	.33	.33	.34	.34	.35	.36	.37	.38	.40	.41	.41	.46	.47	.49	.51	.53	.54	.55	.57	.58	.59	.60	
475	472	470	471	475	482	492	506	521	538	557	577	611	634	656	679	700	721	744	761	776	790	801	810		
30	.38	.38	.38	.38	.39	.39	.40	.41	.42	.43	.45	.46	.43	.51	.53	.54	.56	.58	.59	.61	.62	.63	.64	.65	
541	538	537	539	544	551	561	577	592	609	628	648	683	705	727	749	770	790	812	822	844	856	867	875		
45	.43	.43	.43	.43	.44	.44	.45	.46	.47	.48	.50	.51	.54	.56	.57	.59	.61	.62	.64	.65	.67	.68	.69	.69	
603	601	601	604	609	617	628	644	660	677	696	717	751	773	795	817	837	857	878	894	907	919	929	937		
0900	.47	.47	.47	.47	.48	.48	.49	.50	.52	.53	.54	.56	.59	.60	.62	.64	.65	.67	.69	.70	.71	.72	.73	.74	
663	661	662	665	671	680	691	708	724	742	762	782	816	838	860	881	901	919	940	955	968	979	988	995		
15	.51	.51	.51	.51	.52	.52	.53	.55	.56	.57	.59	.60	.63	.65	.67	.68	.70	.71	.73	.74	.75	.76	.77	.78	
718	717	719	723	730	739	751	768	785	803	823	844	878	899	920	941	960	978	998	0124	0340	0430	049			
30	.54	.54	.55	.55	.56	.56	.57	.59	.60	.61	.63	.65	.67	.69	.71	.72	.74	.75	.77	.78	.79	.80	.81	.81	
770	770	772	776	784	794	807	825	842	861	880	901	935	956	977	997	0160	0333	0520	0650	075	0860	0930	099		
45	.58	.58	.58	.58	.59	.60	.61	.62	.64	.65	.67	.68	.71	.73	.74	.76	.78	.79	.81	.82	.83	.84	.84	.85	
818	818	821	826	835	845	859	877	895	914	934	954	988	009	029	049	067	083	1011	114	125	133	140	145		
1000	.61	.61	.61	.62	.62	.63	.64	.66	.67	.69	.70	.72	.75	.76	.78	.79	.81	.82	.84	.85	.86	.87	.87	.88	
861	862	865	872	881	892	906	925	943	962	983	003	*037	057	077	096	114	129	*146	*153	*168	*176	*182	*186		
15	.64	.64	.64	.65	.65	.66	.67	.69	.70	.72	.73	.75	.79	.79	.81	.83	.84	.85	.87	.88	.89	.90	.91	.91	
900	901	906	913	923	935	949	969	987	*007	*027	*048	*081	101	120	139	155	171	*187	*193	207	214	220	223		
30	.66	.66	.67	.67	.68	.69	.70	.72	.73	.76	.78	*008	*026	*046	*066	*087	*120	*140	*159	*176	*193	*207	*222	*233	
934	936	941	949	960	972	987																			
45	.68	.68	.69	.69	.70	.71	.72	.74	.76	.77	.79	.80	.83	.85	.86	.88	.89	.90	.92	.93	.93	.94	.95	.95	
963	966	972	981	992	*005	*021	*042	*061	*081	*101	*122	*154	*173	*192	*209	*225	*239	*253	*262	*270	*276	*280	*283		

JAN-APR 20 N TABLE B-1 SOLAR PARAMETERS

COS Z X0 (W/M*2.)

*** SIGNIFIES COS Z = 1.
ADD 100 TO VALUES PRECEDED BY *

MST	DATE												APR												
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1100 988 991 998 .007-019-033+049	.76	.78	.79	.81	.82	.85	.87	.68	.90	.91	.92	.93	.94	.95	.96	.96	.97	.97	.98	.98	.98	.98	.98	.98	.98
15 .71 .72 .73 .74 .75 .76 *007+011+018+029+041+056+073	.78	.79	.81	.83	.84	.87	.88	.90	.91	.92	.94	.95	.95	.97	.97	.98	.98	.98	.98	.98	.98	.98	.98	.98	.98
30 .72 .73 .74 .75 .76 .77 *021+026+034+045+058+074+091	.79	.81	.82	.84	.85	.88	.90	.91	.92	.94	.95	.96	.97	.98	.98	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99
45 .73 .73 .74 .75 .76 .77 .78 *030+035+044+056+070+086+103	.80	.82	.83	.85	.86	.89	.90	.92	.93	.94	.96	.97	.97	.98	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99
1200 .73 .74 .75 .76 .77 .79 *034+040+050+062+076+093+111	.81	.82	.84	.85	.87	.89	.91	.92	.94	.95	.96	.97	.97	.98	.98	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99
15 .73 .73 .74 .75 .76 .78 .79 *033+039+050+062+078+094+113	.81	.82	.84	.86	.87	.90	.91	.92	.94	.95	.96	.97	.97	.98	.98	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99
30 .73 .73 .74 .75 .76 .77 .79 *026+033+044+058+073+091+109	.81	.82	.84	.85	.87	.89	.91	.92	.93	.94	.95	.96	.97	.98	.98	.98	.98	.98	.98	.98	.98	.98	.98	.98	.98
45 .72 .72 .73 .74 .75 .77 .78 *014+022+034+048+054+082+101	.80	.82	.83	.85	.86	.89	.90	.91	.92	.94	.94	.95	.95	.97	.97	.97	.97	.97	.97	.97	.97	.97	.97	.97	.97
1300 .70 .71 .72 .73 .74 .76 .77 *997+005+018+032+049+067+086	.79	.81	.82	.84	.85	.88	.89	.90	.91	.92	.93	.94	.95	.95	.96	.96	.96	.96	.96	.96	.96	.96	.96	.96	.96
15 .69 .70 .72 .73 .74 .76 975 984 997+012+029+047+067	.78	.79	.81	.82	.84	.86	.87	.89	.90	.91	.92	.92	.93	.93	.94	.94	.94	.94	.94	.94	.94	.94	.94	.94	.94
30 .67 .68 .69 .70 .71 .72 .74 948 957 971 986+004+023+042	.76	.77	.79	.81	.82	.84	.86	.87	.88	.89	.89	.89	.90	.91	.91	.92	.92	.92	.92	.92	.92	.92	.92	.92	.92
45 .65 .66 .68 .69 .70 .72 916 925 940 956 974 993+013	.74	.75	.77	.78	.80	.82	.83	.84	.85	.86	.87	.88	.88	.89	.89	.89	.89	.89	.89	.89	.89	.89	.89	.89	.89

JAN-APR 20 N TABLE B-1 SOLAR PARAMETERS

COS Z
X0 (W/MM*2.)*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

WST	1	5	10	15	20	25	30	DATE						APR															
								FEB			MAR			5			10			15			20			25			
1400	.62	.63	.64	.65	.66	.68	.69	.71	.73	.74	.76	.77	.79	.81	.82	.83	.84	.85	.86	.86	.87	.87	.87	.87	.87	.87			
	879	889	904	921	939	958	978	*003*023*043*062*079	*105*113*131*141*150*157	*163*165*169*170*171*171																			
15	.59	.60	.61	.62	.64	.65	.67	.68	.70	.72	.73	.74	.76	.78	.79	.80	.81	.82	.82	.83	.83	.84							
	838	848	864	880	899	918	938	963	983	003*021*039	*064*077*069*059*107*114	*119*123*125*126*127*127																	
30	.56	.57	.58	.59	.61	.62	.63	.65	.67	.68	.70	.71	.73	.74	.75	.76	.77	.78	.78	.79	.79	.80	.80	.80	.80	.80			
	792	803	819	836	855	874	894	919	939	958	977	934	*018*031*042*052*060*066	*071*075*077*079*080															
45	.52	.53	.54	.56	.57	.59	.60	.62	.63	.65	.66	.68	.70	.71	.72	.72	.73	.74	.75	.75	.76	.76	.76	.76	.76	.76			
	742	754	769	787	806	825	846	870	890	909	927	944	963	980	991*000*008*014	*019*022*025*026*027*028													
1500	.49	.49	.51	.52	.53	.55	.56	.58	.60	.61	.62	.64	.66	.67	.68	.68	.69	.70	.70	.71	.72	.72	.72	.72	.72	.72			
	688	700	716	734	753	773	793	817	837	855	873	890	913	925	936	944	952	957	963	965	968	970	971	972					
15	.45	.45	.47	.48	.49	.51	.52	.54	.55	.57	.58	.60	.61	.62	.63	.64	.65	.65	.66	.66	.67	.67	.67	.68					
	631	643	659	677	696	716	736	760	779	798	815	831	854	866	876	885	892	897	902	905	909	910	912	913					
30	.40	.41	.42	.44	.45	.46	.48	.50	.51	.53	.54	.55	.57	.58	.59	.60	.61	.61	.62	.62	.62	.63	.63	.63	.63	.63			
	570	582	598	616	635	655	675	699	718	736	753	769	791	803	812	821	828	833	838	842	844	847	848	850					
45	.36	.37	.38	.39	.40	.42	.43	.45	.47	.48	.49	.50	.52	.53	.54	.55	.55	.56	.56	.57	.57	.58	.58	.58	.58	.58			
	505	517	534	552	572	591	611	634	653	671	688	703	725	736	745	754	760	766	771	774	777	780	782	784					
1600	.31	.32	.33	.34	.36	.37	.39	.40	.42	.43	.44	.45	.47	.48	.49	.50	.50	.51	.51	.52	.52	.52	.53	.53	.53	.53			
	438	450	467	485	504	524	543	567	585	603	619	634	655	666	675	683	690	695	700	704	707	710	713	716					
15	.26	.27	.28	.29	.31	.32	.34	.35	.37	.38	.39	.40	.42	.43	.44	.44	.45	.45	.46	.46	.46	.47	.47	.48					
	368	380	397	415	434	454	473	496	514	531	547	562	582	593	602	610	616	622	627	631	634	638	641	644					
30	.21	.22	.23	.24	.26	.27	.28	.30	.31	.33	.34	.35	.36	.37	.38	.39	.39	.40	.40	.41	.41	.42	.42	.42	.42	.42			
	295	308	325	343	362	381	400	422	440	457	472	487	506	517	526	534	540	546	551	555	559	563	567	571					
45	.16	.17	.18	.19	.20	.22	.23	.25	.26	.27	.28	.29	.31	.32	.32	.33	.34	.34	.35	.35	.35	.36	.36	.37	.37	.37			
	221	233	250	268	287	306	324	346	364	380	395	409	429	439	448	455	462	467	473	478	482	486	491	495					

JAN-APR 20 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY *

252

*** SIGNIFIES COS Z = 1.

X0 (W/M**2.)

MST	JAN					FEB					DATE					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30	
1700	.10	.11	.12	.14	.15	.16	.18	.19	.20	.22	.23	.24	.25	.26	.27	.28	.28	.29	.29	.30	.30	.31	.31		
	144	157	174	192	210	229	247	268	285	301	316	330	349	359	367	375	381	387	394	393	403	408	413	418	
15	.05	.06	.07	.08	.09	.11	.12	.13	.15	.16	.17	.18	.19	.20	.21	.21	.22	.22	.23	.23	.24	.24	.25	.25	
	667	677	679	696	114	132	150	168	189	205	221	235	249	267	277	285	293	300	306	312	319	323	328	334	340
30	.00	.00	.01	.02	.04	.05	.06	.08	.09	.10	.11	.12	.13	.14	.15	.15	.16	.16	.17	.17	.18	.18	.19	.19	
	000	000	017	034	052	070	087	108	124	139	153	166	184	193	202	210	216	223	230	235	241	247	254	260	
45	.00	.00	.00	.00	.00	.00	.00	.02	.03	.04	.05	.06	.07	.08	.09	.09	.10	.10	.11	.11	.12	.12	.13	.13	
	000	000	000	000	000	000	006	025	041	056	070	082	100	109	118	125	133	139	147	153	159	166	173	180	
1800	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.02	.02	.03	.04	.04	.05	.05	.05	.06	.06	.07	
	000	000	000	000	000	000	000	000	000	000	000	000	015	024	033	041	048	055	063	070	077	084	092	100	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.01	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	011	019	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	

JAN-APR 20 N TABLE B-1 SOLAR PARAMETERS $\cos Z$ *1
 $X_0 (W/m^2)^2$

*1 SIGNIFIES COS Z *1.
 ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					DATE					AUG				
	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.01	.02	.02	.02	.02	.02	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.05	.06	.07	.07	.08	.08	.08	.08	.07	.07	.06	.05	.04	.03	.03	.02	.01	.01	.00	.00
0600	.11	.12	.12	.13	.13	.14	.14	.14	.13	.13	.12	.12	.11	.10	.09	.09	.08	.07	.06	.05
15	.17	.18	.18	.19	.19	.19	.19	.19	.19	.18	.18	.17	.17	.16	.15	.14	.14	.13	.12	.11
30	.23	.23	.24	.25	.25	.25	.25	.25	.25	.24	.24	.23	.22	.22	.21	.20	.20	.19	.18	.17
45	.28	.29	.30	.30	.31	.31	.31	.31	.30	.29	.29	.28	.28	.27	.26	.26	.25	.25	.24	.23
0700	.34	.35	.35	.36	.36	.36	.36	.36	.35	.35	.34	.34	.33	.32	.32	.31	.31	.30	.30	.29
15	.40	.40	.41	.41	.42	.42	.42	.41	.41	.40	.40	.39	.38	.37	.37	.35	.36	.35	.35	.35
30	.45	.46	.46	.47	.47	.47	.47	.47	.47	.46	.45	.45	.44	.44	.43	.43	.42	.42	.42	.41
45	.51	.51	.52	.52	.52	.52	.52	.52	.52	.51	.50	.50	.49	.48	.48	.48	.47	.47	.47	.46
0600	.688	.688	.692	.695	.695	.695	.692	.689	.685	.685	.680	.675	.669	.664	.658	.653	.648	.643	.639	.634

MAY-AUG 20 N TABLE B-1 SOLAR PARAMETERS CCS Z = 1.
XO (W/N=•2.) *** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

PREVIOUS PAGE
IS BLANK

NST	5	10	15	20	25	30	DATE						AUG											
							5	10	15	20	25	30	5	10	15	20	25	30						
0000	.56	.56	.57	.57	.57	.57	.57	.57	.56	.56	.56	.56	.55	.55	.54	.54	.54	.53	.53	.52	.52	.52		
0000	751	756	760	762	763	762	759	755	751	746	741	736	730	725	720	716	712	708	704	702	700	698	695	
15	.61	.61	.62	.62	.62	.62	.62	.62	.61	.61	.61	.60	.60	.60	.59	.59	.59	.58	.58	.57	.57	.57	.57	
15	818	823	826	827	827	826	822	819	815	810	805	800	795	790	786	782	778	775	772	770	766	765	764	
30	.66	.66	.66	.67	.67	.67	.67	.66	.66	.66	.65	.65	.65	.64	.64	.64	.63	.63	.63	.62	.62	.62	.62	
30	882	886	888	889	889	887	884	880	876	871	866	861	857	852	848	845	842	839	837	835	834	833	832	831
45	.70	.71	.71	.71	.71	.71	.71	.71	.70	.70	.70	.70	.69	.69	.68	.68	.68	.68	.68	.67	.67	.67	.67	
45	942	946	948	948	947	945	942	938	933	929	924	920	915	912	908	905	902	900	898	897	895	895	894	
0900	.74	.75	.75	.75	.75	.75	.75	.75	.75	.74	.74	.74	.75	.73	.73	.73	.72	.72	.72	.72	.71	.71	.71	
0900	999	999	999	999	999	999	996	992	988	984	979	975	971	968	965	962	960	958	957	955	955	954	953	
15	.78	.79	.79	.79	.79	.79	.79	.79	.78	.78	.78	.78	.77	.77	.77	.77	.76	.76	.76	.75	.75	.75	.75	
15	*053	*056	*056	*056	*056	*052	*048	*044	*039	*039	*035	*031	*027	*024	*020	*018	*015	*014	*013	*012	*011	*011	*010	*009
30	.82	.82	.83	.83	.83	.83	.82	.82	.82	.82	.82	.81	.81	.81	.80	.80	.80	.80	.80	.79	.79	.79	.79	
30	*103	*104	*105	*104	*102	*099	*095	*091	*087	*083	*079	*075	*072	(*69	.667	.665	.664	.663	*063	*063	*063	*062	*061	
45	.85	.86	.86	.86	.86	.86	.86	.86	.85	.85	.85	.85	.84	.84	.84	.84	.84	.83	.83	.83	.83	.83	.83	
45	*148	*149	*149	*149	*148	*143	*139	*135	*131	*127	*123	*120	*117	*115	*115	*113	*111	*111	*110	*110	*110	*110	*110	
1000	.88	.89	.89	.89	.89	.89	.89	.88	.88	.88	.88	.88	.87	.87	.87	.87	.87	.87	.87	.86	.86	.86	.86	
1000	*189	*190	*189	*189	*188	*185	*182	*178	*174	*170	*167	*163	*160	*158	*156	*154	*153	*153	*153	*153	*154	*153	*152	
15	.91	.91	.91	.92	.92	.91	.91	.91	.91	.91	.91	.90	.90	.90	.90	.90	.90	.90	.90	.89	.89	.89	.89	
15	*225	*226	*225	*225	*223	*221	*217	*213	*209	*206	*202	*199	*197	*194	*193	*192	*191	*191	*192	*192	*192	*192	*191	
30	.93	.94	.94	.94	.94	.94	.94	.93	.93	.93	.93	.93	.93	.93	.93	.92	.92	.92	.92	.92	.91	.91	.91	
30	*257	*257	*258	*254	*251	*248	*244	*240	*237	*234	*231	*229	*227	(*225	.225	.225	.225	.225	*226	*227	*227	*227	*225	
45	.95	.96	.96	.96	.96	.96	.96	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.94	.94	.94	.94	.94	.93	
45	*284	*282	*282	*280	*277	*274	*270	*266	*263	*260	*258	*256	*254	*254	*254	*253	*253	*254	*254	*255	*255	*255	*254	

TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M*2.) *** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MAY-AUG 20 N

MST	MAY										JUN										JUL										AUG									
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30										
1100	.97	.97	.97	.97	.97	.97	*291*286*285*282*280*279	.97	.97	.97	.97	.97	*278*277*277*277*278*279	.97	.96	.96	.96	.96	.96	*280*281*281*281*280*278	.96	.95	.95	.95	.95	.95	*280*281*281*281*280*278													
15	.98	.99	.99	.99	.99	.99	*308*305*302*300*298*297	.98	.98	.98	.98	.98	*296*296*296*297*298*299	.98	.98	.98	.98	.98	.98	*300*301*301*301*300*299*297	.98	.97	.97	.97	.97	.96	*300*301*301*301*300*299*297													
30	.99	.99	.99	.99	.99	.99	*320*317*314*312*311*310	.99	.99	.99	.99	.99	*310*310*310*311*312*313	.99	.99	.99	.99	.99	.99	*315*315*315*315*315*310	.99	.99	.99	.99	.99	.97	*315*315*315*315*315*310													
45	***	***	***	***	***	***	*341*340*338*335*333*330	***	***	***	***	***	*326*324*322*320*319*318	***	***	***	***	***	***	*318*319*320*321*322*323	***	***	***	***	***	***	*324*325*325*324*322*318													
1200	***	***	***	***	***	***	*342*341*339*337*334*331	***	***	***	***	***	*328*326*324*323*322*322	***	***	***	***	***	***	*322*323*324*325*327*328	***	***	***	***	***	***	*329*329*328*328*325*321													
15	***	***	***	***	***	***	*339*337*335*333*330*328	***	***	***	***	***	*325*323*322*321*321*321	***	***	***	***	***	***	*321*322*324*325*328	***	***	***	***	***	***	*329*329*328*326*323*319													
30	.99	.99	.99	.99	.99	.99	*330*328*326*324*322*320	.99	.99	.99	.99	.99	*317*316*315*314*314*314	.99	.99	.99	.99	.99	.99	*315*317*316*320*321*322	.99	.99	.99	.99	.99	.99	*323*323*322*320*316*311													
45	.98	.98	.98	.98	.98	.98	*316*314*312*310*308*306	.98	.98	.98	.98	.98	*304*303*302*302*303*303	.98	.99	.99	.99	.99	.99	*305*306*308*309*311*312	.99	.99	.99	.99	.99	.97	*312*312*310*308*304*298													
1300	.96	.96	.97	.97	.97	.97	*296*295*293*291*290*288	.97	.97	.97	.97	.97	*287*286*286*286*285*287	.97	.97	.98	.98	.98	.98	*289*291*292*294*295*296	.97	.97	.97	.97	.96	.95	*297*295*294*291*286*280													
15	.95	.95	.95	.95	.95	.95	*272*271*269*268*266*265	.95	.95	.95	.95	.95	*264*264*264*265*257	.95	.95	.96	.96	.96	.96	*265*270*272*274*275*276	.96	.95	.95	.95	.94	.93	*276*275*272*269*263*256													
30	.92	.93	.93	.93	.93	.93	*243*242*241*239*238*237	.93	.93	.93	.94	.94	*237*237*238*238*240*241	.94	.94	.94	.94	.94	.94	*243*245*247*249*250*251	.94	.94	.94	.93	.93	.92	*250*249*249*241*235*228													
45	.90	.90	.90	.90	.90	.91	*209*208*207*206*206*205	.91	.91	.91	.91	.92	*205*206*207*208*210*212	.92	.92	.92	.92	.92	.92	*214*216*218*219*220*221	.92	.91	.91	.90	.90	.89	*220*218*218*214*209*203*194													

MAY-AUG 20 N

TABLE B-1

SOLAR PARAMETERS COS Z

X0 (W/M**2.)

SIGNIFIES COS Z = 1.

ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					DATE					JUL					AUG				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1400	.87	.87	.87	.87	.88	.88	.88	.88	.89	.89	.89	.89	.89	.89	.89	.89	.89	.89	.89	.89	.89	.89	.89	.89	.89
	*170	*170	*169	*169	*169	*169	*169	*170	*171	*173	*175	*177	*180	*182	*184	*185	*186	*186	*185	*182	*178	*173	*165	*156	
15	.84	.84	.84	.84	.85	.85	.85	.85	.85	.86	.86	.86	.86	.86	.86	.87	.87	.86	.86	.85	.85	.85	.84	.83	.83
	*127	*127	*127	*127	*127	*128	*129	*130	*132	*134	*136	*139	*141	*143	*145	*147	*148	*147	*145	*142	*138	*131	*123	*113	
30	.80	.80	.81	.81	.81	.81	.82	.82	.82	.82	.82	.83	.83	.83	.83	.83	.83	.83	.83	.82	.82	.81	.80	.79	.79
	*080	*080	*080	*081	*081	*083	*084	*086	*088	*091	*093	*096	*097	*101	*103	*104	*105	*104	*102	*035	*033	*086	*077	*066	
45	.76	.77	.77	.77	.78	.78	.78	.78	.79	.79	.79	.79	.80	.80	.80	.80	.80	.80	.79	.79	.79	.78	.77	.77	.75
	*029	*029	*030	*031	*032	*034	*036	*038	*041	*044	*047	*049	*052	*055	*056	*058	*057	*054	*049	*043	*036	*026	*014		
1500	.72	.73	.73	.73	.74	.74	.74	.74	.75	.75	.75	.75	.76	.76	.76	.76	.76	.76	.75	.74	.73	.72	.71		
	973	974	976	977	979	981	984	987	990	993	996	999	*002	*004	*006	*007	*007	*005	*002	*007	*007	*007	*005		
15	.68	.68	.69	.69	.69	.69	.70	.70	.71	.71	.71	.71	.72	.72	.72	.72	.72	.72	.71	.71	.70	.69	.68	.67	
	914	916	918	920	922	925	928	932	935	938	942	945	948	951	952	953	952	950	946	941	933	924	913	899	
30	.63	.64	.64	.64	.65	.65	.65	.66	.66	.67	.67	.67	.67	.68	.68	.68	.67	.67	.67	.65	.65	.65	.63	.62	
	852	854	856	859	862	865	869	873	877	881	885	888	891	893	895	895	894	892	887	881	873	863	851	837	
45	.59	.59	.59	.60	.60	.60	.61	.61	.62	.62	.63	.63	.63	.63	.63	.63	.63	.63	.62	.61	.61	.60	.59	.57	
	787	789	792	795	799	803	808	812	816	820	824	828	831	833	834	835	833	830	825	813	809	798	785	770	
1600	.53	.54	.54	.55	.55	.55	.56	.56	.57	.57	.58	.58	.58	.58	.58	.58	.58	.58	.57	.53	.56	.55	.54	.52	
	719	722	725	729	733	738	743	748	753	757	761	765	768	770	771	771	769	766	759	752	742	731	717	701	
15	.48	.49	.49	.49	.50	.50	.51	.51	.52	.52	.53	.53	.53	.53	.53	.53	.53	.53	.52	.51	.50	.49	.48	.47	
	648	652	656	660	665	670	676	681	687	691	696	700	703	705	705	703	699	692	683	673	661	646	629		
30	.43	.43	.44	.44	.45	.45	.46	.46	.47	.47	.47	.48	.48	.48	.48	.48	.47	.47	.45	.45	.44	.43	.41		
	575	579	584	589	595	600	607	613	618	623	628	632	635	637	637	636	634	629	621	612	601	588	573	555	
45	.37	.38	.38	.39	.39	.40	.40	.41	.41	.42	.42	.43	.43	.43	.43	.42	.42	.41	.40	.40	.38	.37	.36		
	500	505	511	517	523	529	536	542	548	554	558	562	565	567	567	566	563	558	549	539	527	513	497	479	

MAY-AUG 20 N TABLE B-1 SOLAR PARAMETERS COS Z =⁻¹
X0 (W/M=⁺²) *** SIGNIFIES COS Z =⁻¹.
ADD 1000 TO VALUES PRECEDED BY *

NST	MAY					JUN					DATE					AUG							
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30	
1700	.32	.32	.33	.33	.34	.34	.35	.35	.36	.37	.37	.37	.37	.37	.37	.36	.35	.34	.33	.31	.30		
424	429	436	442	449	456	464	470	477	482	487	491	494	495	495	493	490	484	475	464	.452	437	420	401
15	.26	.26	.27	.27	.28	.29	.29	.30	.30	.31	.31	.32	.32	.32	.32	.31	.31	.30	.29	.28	.27	.25	.24
346	352	359	367	374	381	390	397	404	409	414	418	421	422	422	420	416	409	399	388	.375	.359	.341	.322
30	.20	.20	.21	.22	.22	.23	.24	.24	.25	.25	.26	.26	.26	.26	.26	.25	.25	.24	.23	.22	.21	.20	.18
267	274	282	290	298	306	315	323	330	336	341	345	347	348	347	345	340	333	322	313	.295	.280	.261	.241
45	.14	.15	.15	.16	.17	.17	.18	.19	.19	.20	.20	.21	.21	.21	.20	.19	.19	.18	.17	.16	.15	.14	.12
188	196	204	213	222	230	240	248	255	261	266	270	273	273	272	269	264	257	245	232	.217	.200	.181	.160
1800	.08	.09	.09	.10	.11	.12	.12	.13	.14	.14	.15	.15	.15	.15	.15	.14	.14	.13	.12	.10	.09	.08	.06
108	117	126	136	145	154	165	173	180	187	192	196	198	198	197	193	187	179	167	153	.138	.120	.100	.078
15	.02	.03	.04	.04	.05	.06	.07	.07	.08	.08	.09	.09	.09	.09	.09	.08	.08	.07	.06	.04	.03	.01	.00
029	038	048	058	068	078	089	098	105	112	117	121	123	123	121	117	111	102	088	075	.058	.040	.019	.000
30	.00	.00	.00	.00	.00	.00	.01	.02	.02	.03	.03	.04	.04	.04	.03	.03	.02	.01	.00	.00	.00	.00	.00
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

MAY-AUG 20 N TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.) ** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					NOV					DEC								
	5	10	15	20	30	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30		
0600	.05	.04	.04	.04	.03	.03	.02	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
	065	060	055	050	045	039	032	024	015	004	000	000	000	000	000	000	000	000	000	000	000	000		
15	.11	.11	.10	.10	.09	.09	.08	.08	.07	.06	.06	.05	.03	.02	.01	.00	.00	.00	.00	.00	.00	.00		
	147	143	138	134	128	122	115	107	098	088	076	062	045	029	013	000	000	000	000	000	000	000		
30	.17	.17	.16	.16	.16	.15	.15	.14	.13	.12	.11	.10	.09	.08	.07	.05	.04	.03	.02	.01	.00	.00		
	229	225	221	216	211	205	198	190	181	170	158	144	127	111	094	076	059	041	024	003	000	000		
45	.23	.23	.22	.22	.21	.21	.21	.20	.19	.18	.17	.16	.15	.14	.12	.11	.10	.09	.07	.05	.04	.03		
	310	306	303	298	293	288	281	272	263	252	239	225	207	191	173	156	138	120	103	087	071	057	035	
0700	.29	.29	.28	.28	.28	.27	.26	.26	.25	.24	.23	.22	.21	.19	.18	.17	.15	.14	.13	.12	.11	.09	.08	
	390	387	383	379	374	368	361	353	343	332	319	305	286	269	252	234	216	198	180	164	149	135	113	
15	.35	.34	.34	.34	.33	.33	.32	.31	.31	.30	.29	.28	.26	.25	.23	.22	.21	.19	.18	.17	.16	.15	.13	
	469	466	462	458	454	448	440	432	422	410	397	382	363	346	328	310	292	274	256	243	225	211	190	
30	.40	.40	.40	.39	.39	.38	.38	.37	.36	.35	.34	.33	.31	.30	.29	.27	.26	.25	.23	.22	.21	.20	.19	
	545	543	540	536	531	525	517	509	498	486	473	458	438	421	403	384	366	348	330	314	293	286	265	
45	.46	.46	.45	.45	.44	.44	.43	.42	.42	.41	.39	.38	.37	.35	.34	.33	.31	.30	.29	.27	.26	.25	.24	
	620	618	615	611	606	600	592	583	572	560	546	531	511	493	475	456	438	419	402	383	371	358	338	
0800	.51	.51	.51	.50	.50	.49	.48	.48	.47	.46	.45	.43	.42	.40	.39	.37	.36	.35	.33	.32	.31	.30	.29	
	692	690	687	683	678	672	664	655	644	631	617	601	581	563	544	526	507	489	471	455	441	428	409	
15	.57	.56	.56	.55	.55	.54	.54	.53	.52	.51	.49	.48	.47	.45	.44	.42	.41	.39	.38	.37	.36	.35	.34	
	762	760	757	753	748	741	733	723	712	699	684	669	648	630	611	592	573	555	538	522	508	495	478	
30	.62	.61	.61	.60	.60	.59	.58	.57	.56	.55	.54	.53	.51	.50	.48	.47	.45	.44	.43	.42	.40	.39	.38	
	829	826	823	819	814	807	799	789	777	764	749	732	711	693	674	655	636	618	601	583	572	560	550	543
45	.66	.66	.65	.65	.64	.64	.63	.62	.61	.60	.58	.57	.55	.54	.52	.51	.50	.48	.47	.45	.44	.43	.43	
	892	890	887	882	877	870	861	850	838	825	809	793	771	753	734	715	696	678	661	645	632	621	612	605

SEP-DEC 20 N TABLE B-1 SOLAR PARAMETERS

COS Z =
X0 (W/M**2.)

*** SIGNIFIES COS Z = 1.

ADD 1000 TO VALUES PRECEDED BY *

PREVIOUS PAGE
IS BLANK

C

MST	SEP					OCT					NOV					DEC								
	5	10	15	20	30	5	10	15	20	30	5	10	15	20	30	5	10	15	20	30				
0900	.71	.70	.69	.69	.68	.67	.66	.65	.64	.63	.51	.58	.56	.55	.54	.52	.51	.53	.49	.48	.47	.47		
	952	949	946	942	936	928	919	908	896	882	866	849	828	809	790	771	752	734	718	703	690	679	664	
15	.75	.74	.74	.73	.73	.71	.70	.69	.68	.66	.55	.63	.62	.60	.59	.57	.56	.55	.54	.53	.52	.51	.51	
	*008*005*002	997	991	983		973	962	949	935	919	902	880	861	842	823	804	786	770	755	743	733	725	720	
30	.79	.78	.78	.77	.76	.75	.74	.72	.71	.70	.68	.67	.65	.64	.62	.61	.59	.58	.57	.56	.55	.55	.55	
	*059*057*053*048*041*033					*023*012	998	983	967	950	920	903	859	870	852	835		819	801	792	783	776	771	
45	.82	.82	.81	.81	.80	.79	.78	.77	.76	.74	.73	.70	.69	.67	.65	.64	.62	.61	.60	.59	.59	.58	.58	
	*107*104*100*094*087*079					*068*056*043*027*011	993	971	952	932	914	895	878	863	843	818	829	822	818					
1000	.85	.85	.84	.84	.83	.82	.81	.80	.79	.77	.76	.74	.72	.71	.69	.68	.67	.65	.64	.63	.62	.62	.61	.61
	*150*147*142*136*129*120					*109*097*082*067*050*032		*009	990	971	952	934	918		903	889	878	870	864	861				
15	.88	.88	.87	.86	.86	.85	.84	.82	.81	.80	.78	.77	.75	.73	.72	.70	.69	.68	.67	.66	.65	.64	.64	
	*188*185*180*174*166*156					*145*132*117*101*084*066			*043*024*005	986	969	952		938	925	915	907	902	900					
30	.91	.90	.89	.89	.88	.87	.86	.85	.83	.82	.80	.79	.77	.75	.74	.72	.71	.70	.69	.63	.67	.66	.66	
	*222*218*213*206*197*187					*175*162*147*131*113*095			*072*053*034*015	998	982			968	956	946	939	935	934					
45	.93	.92	.92	.91	.90	.89	.88	.86	.85	.84	.82	.80	.79	.77	.76	.74	.73	.72	.70	.73	.69	.68	.68	
	*250*246*240*233*224*213					*201*187*171*155*137*118			*095*076*057*039*022*007					993	982	973	967	963	963					
1100	.95	.94	.93	.92	.91	.90	.89	.88	.86	.85	.82	.80	.78	.77	.75	.74	.73	.72	.71	.70	.70	.70	.70	
	*274*269*263*255*245*234					*221*206*191*173*155*137			*114*045*076*058*042*027					*014*003	995	989	986	987						
15	.96	.95	.94	.94	.93	.91	.90	.89	.87	.86	.84	.83	.91	.79	.78	.76	.75	.74	.73	.72	.72	.71	.71	
	*292*287*280*271*261*249					*236*221*204*187*169*150			*127*108*089*072*056*041					*029*013	911	906*004*006								
30	.97	.96	.95	.94	.93	.92	.91	.89	.88	.86	.85	.83	.81	.80	.78	.77	.76	.75	.74	.73	.72	.72	.72	
	*305*299*292*282*272*259					*245*230*213*195*176*157			*134*116*097*080*065*051					*039*023	019*017*019									
45	.97	.97	.96	.95	.94	.92	.91	.90	.88	.87	.85	.83	.82	.80	.79	.77	.76	.75	.74	.73	.73	.72	.73	
	*313*306*298*288*277*264					*249*233*216*198*179*160			*137*118*100*080*068*055					*044*035	029*026*028									

SEP-DEC 20 N

TABLE B-1 SOLAR PARAMETERS COS Z
X0 (W/M**2.)*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

SEP-DEC	20 N	TABLE B-1 SOLAR PARAMETERS												TABLE B-2 COS Z															
		MST						DATE						NOV						DEC									
5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1200	.98	.97	.96	.95	.94	.92	.91	.90	.88	.86	.85	.83	.81	.80	.78	.77	.76	.75	.74	.73	.73	.73	.73	.73	.73	.73	.73	.73	.73
	*315+308+299+288+276+262						*247+231+213+195+176+156						*133+115+097+081+066+054						*043+035+030+027+028+031										
15	.97	.96	.96	.94	.93	.92	.90	.89	.87	.86	.84	.83	.81	.79	.78	.77	.75	.74	.74	.73	.73	.72	.73	.73	.73	.73	.73	.73	.73
	*312+304+294+283+270+256						*240+223+205+186+167+148						*125+107+089+073+059+047						*037+030+026+024+025+030										
30	.97	.96	.95	.94	.92	.91	.90	.88	.86	.85	.83	.82	.80	.78	.77	.76	.75	.74	.73	.72	.72	.72	.72	.72	.72	.72	.72	.72	.72
	*303+295+284+272+259+244						*228+210+192+172+153+124						*111+093+076+061+047+035						*026+023+016+015+018+023										
45	.96	.95	.94	.92	.91	.90	.88	.87	.85	.83	.82	.80	.78	.77	.76	.74	.73	.72	.72	.71	.71	.71	.71	.71	.71	.71	.71	.71	.71
	*289+280+269+256+242+226						*209+191+173+153+134+114						*092+074+057+043+029+019						*010+005+002+002+005+010										
1300	.94	.93	.92	.91	.90	.88	.87	.85	.83	.82	.80	.78	.77	.75	.74	.73	.72	.71	.70	.70	.70	.70	.70	.70	.70	.70	.70	.70	
	*270+260+248+235+220+204						*186+168+148+129+109+090						*067+050+034+019+007+997						*989+988+987+986+985+993										
15	.92	.91	.90	.89	.88	.86	.84	.83	.81	.80	.78	.76	.74	.73	.72	.71	.70	.69	.68	.68	.68	.68	.68	.68	.68	.68	.68	.68	
	*246+235+222+208+193+176						*158+139+119+099+079+060						*038+021+005+991+979+970						*963+953+947+957+959+971										
30	.90	.89	.88	.87	.85	.84	.82	.80	.79	.77	.75	.74	.72	.71	.69	.68	.67	.67	.66	.66	.66	.66	.66	.66	.66	.66	.66	.66	.66
	*216+205+191+177+160+143						*124+04+084+064+045+025						*003+936+971+958+947+938						*932+923+928+930+935+943										
45	.88	.87	.85	.84	.82	.81	.79	.78	.76	.74	.73	.71	.69	.68	.67	.66	.65	.64	.64	.63	.63	.63	.64	.64	.64	.64	.64	.64	
	*182+170+155+140+123+104						*085+065+045+025+005+986						*964+947+933+920+909+901						*896+873+893+896+902+911										
1400	.85	.84	.82	.81	.79	.78	.76	.74	.73	.71	.69	.68	.64	.63	.62	.61	.60	.55	.65	.64	.63	.62	.61	.61	.60	.59	.61	.62	
	*143+130+115+098+080+061						*042+021+001+980+960+941						*920+901+869+877+867+860						*855+853+854+858+865+874										
15	.82	.80	.79	.77	.76	.74	.73	.71	.69	.67	.66	.64	.63	.61	.60	.59	.58	.57	.57	.57	.57	.57	.58	.58	.59	.59	.59	.59	
	*099+085+065+052+033+014						*994+973+952+931+912+853						*871+856+842+830+821+814						*810+803+811+815+823+833										
30	.78	.77	.75	.74	.72	.70	.69	.67	.65	.64	.62	.60	.59	.58	.57	.56	.55	.54	.54	.54	.54	.54	.54	.54	.54	.54	.54	.54	
	*051+036+019+001+982+962						*941+920+899+878+858+829						*812+803+790+779+770+764						*761+763+763+768+776+787										
45	.74	.73	.71	.70	.68	.66	.65	.63	.61	.59	.58	.56	.55	.53	.52	.51	.50	.50	.50	.50	.51	.51	.51	.52	.52	.52	.52	.52	.52
	998	982	965	946	927	906	884	863	842	821	792	762	747	734	724	716	710	708	703	711	717	725	736						

NST	SEP										OCT										NOV										DEC									
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30																
1500	.70	.68	.67	.65	.64	.62	.60	.58	.57	.55	.53	.52	.50	.49	.48	.47	.47	.46	.46	.45	.46	.47	.47	.48																
941	925	907	887	867	846	824	802	781	760	740	721	701	687	674	664	657	652	651	651	655	662	671	682																	
15	.65	.64	.62	.61	.59	.57	.55	.54	.52	.50	.49	.47	.46	.45	.44	.43	.42	.42	.42	.42	.43	.43	.44																	
881	864	845	825	804	782	760	737	716	695	675	657	637	623	611	602	595	591	590	591	595	603	613	625																	
30	.61	.59	.58	.56	.54	.52	.51	.49	.47	.45	.44	.42	.41	.40	.39	.38	.38	.37	.37	.37	.38	.38	.39	.40																
817	799	779	759	737	714	692	669	648	627	607	589	570	556	545	536	530	526	526	529	533	541	551	563																	
45	.56	.54	.52	.51	.49	.47	.45	.44	.42	.40	.39	.37	.36	.35	.34	.33	.33	.33	.33	.33	.34	.34	.35																	
750	731	711	689	667	644	621	598	576	555	536	518	499	486	475	467	462	459	459	462	467	475	486	499																	
1600	.50	.49	.47	.45	.44	.42	.40	.38	.36	.35	.33	.32	.31	.30	.29	.28	.28	.28	.28	.28	.29	.29	.30	.31																
680	660	639	617	594	571	547	525	502	481	462	444	426	413	403	395	391	388	389	393	399	407	418	431																	
15	.45	.43	.42	.40	.38	.36	.34	.33	.31	.29	.28	.27	.25	.24	.24	.23	.23	.23	.23	.23	.24	.25	.26																	
607	587	565	542	519	495	471	448	426	405	386	368	351	338	328	321	317	316	317	321	327	336	348	361																	
30	.39	.38	.36	.34	.32	.31	.29	.27	.25	.24	.22	.21	.20	.19	.18	.18	.17	.17	.18	.18	.19	.19	.20																	
532	511	488	465	441	417	393	370	348	327	308	290	273	261	252	245	242	241	243	247	254	263	275	277																	
45	.34	.32	.30	.28	.27	.25	.23	.21	.19	.18	.16	.15	.14	.13	.12	.12	.12	.12	.12	.13	.13	.14	.15																	
455	433	410	386	362	337	313	290	267	246	228	211	194	182	174	168	165	164	166	171	179	188	200	214																	
1700	.28	.26	.24	.23	.21	.19	.17	.15	.14	.12	.11	.09	.08	.07	.07	.06	.06	.06	.06	.07	.07	.08	.09	.10																
376	353	330	305	280	256	231	208	186	165	146	130	113	102	94	89	86	86	889	894	102	112	124	138																	
15	.22	.20	.18	.16	.15	.13	.11	.09	.08	.06	.05	.03	.02	.02	.01	.01	.01	.01	.01	.02	.02	.03	.04																	
296	273	248	223	198	173	149	125	103	082	064	048	032	C21	013	008	006	007	010	016	024	034	046	060																	
30	.16	.14	.12	.10	.08	.07	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00																	
214	191	166	141	115	90	665	641	619	600	580	560	600	600	600	600	600	600	600	600	600	600	600	600																	
45	.10	.08	.06	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00																	
132	108	863	557	031	006	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000																	

TABLE B-1 SOLAR PARAMETERS COS Z
X0 (W/M²*2.) SEP-DEC 20 N *** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					NOV					DEC				
	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25
1800	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
050	.025	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

TABLE B-1 SOLAR PARAMETERS COS Z_{X0} (W/M**2.) *** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	DATE										APR								
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
0600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.05	.04	.03	.02	.02	.01	.01	.01	.00	.00	.00	.01	.02	.02	.03	.04	.04	.05	.06
066	.056	.045	.034	.025	.017	.011	.006	.004	.004	.006	.009	.013	.025	.033	.042	.052	.061	.072	.083
30	.11	.10	.09	.09	.08	.07	.07	.07	.07	.07	.07	.095	.093	.094	.096	.099	.103	.108	.111
151	.141	.130	.120	.112	.105	.099	.095	.093	.094	.096	.099	.108	.116	.124	.133	.141	.150	.160	.163
45	.17	.16	.15	.15	.14	.14	.13	.13	.13	.13	.14	.133	.141	.150	.159	.168	.177	.186	.195
235	.226	.215	.206	.198	.191	.186	.183	.182	.183	.185	.199	.198	.206	.214	.222	.231	.239	.248	.255
0700	.23	.22	.21	.21	.20	.20	.19	.19	.19	.19	.20	.20	.21	.21	.22	.23	.24	.25	.25
318	.310	.300	.291	.283	.277	.273	.270	.270	.271	.274	.278	.287	.295	.303	.311	.319	.327	.336	.342
15	.28	.28	.27	.27	.26	.26	.25	.25	.25	.26	.26	.356	.356	.358	.361	.366	.375	.383	.390
400	.392	.382	.374	.367	.362	.358	.356	.356	.358	.358	.361	.366	.375	.383	.390	.398	.406	.413	.421
30	.34	.33	.33	.32	.32	.32	.31	.31	.31	.32	.32	.31	.31	.31	.32	.32	.33	.34	.35
481	.473	.464	.456	.450	.445	.442	.441	.441	.443	.447	.452	.441	.441	.443	.447	.452	.462	.469	.476
45	.40	.39	.38	.38	.38	.37	.37	.37	.37	.38	.38	.373	.37	.37	.38	.38	.39	.40	.41
559	.551	.543	.536	.530	.527	.524	.523	.523	.524	.527	.531	.536	.543	.553	.560	.567	.574	.580	.586
0800	.45	.44	.44	.43	.43	.43	.43	.43	.43	.43	.44	.604	.605	.608	.613	.618	.628	.635	.642
634	.627	.620	.614	.609	.606	.604	.604	.604	.605	.608	.613	.618	.628	.635	.642	.648	.655	.660	.666
15	.50	.50	.49	.49	.48	.48	.48	.48	.49	.49	.49	.50	.51	.51	.52	.53	.54	.54	.55
708	.701	.694	.689	.684	.682	.681	.682	.682	.684	.687	.692	.697	.707	.714	.720	.727	.732	.737	.742
778	.772	.765	.761	.757	.755	.755	.757	.757	.759	.763	.768	.773	.783	.790	.796	.802	.807	.811	.815
45	.60	.59	.59	.59	.59	.59	.59	.59	.59	.60	.60	.61	.61	.62	.63	.64	.64	.65	.65
844	.839	.833	.829	.827	.826	.826	.828	.831	.836	.841	.846	.856	.862	.868	.874	.878	.882	.884	.884

JAN-APR 0 TABLE B-1 SOLAR PARAMETERS CCS 2 X0 (W/M+2.)

*** SIGNIFIES COS 2 *1.
ADD 1000 TO VALUES PRECEDED BY *

PREVIOUS PAGE
IS BLANK

MST	DATE										DATE									
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0900	.64	.64	.63	.63	.63	.63	.63	.64	.64	.65	.65	.66	.67	.67	.68	.68	.69	.69	.70	.70
0907	.903	.898	.895	.893	.892	.893	.893	.896	.900	.905	.910	.916	.925	.931	.937	.942	.946	.949	.950	.953
15	.68	.68	.68	.68	.68	.68	.68	.68	.69	.69	.70	.70	.71	.72	.72	.73	.73	.74	.74	.74
966	.962	.958	.956	.955	.955	.957	.957	.961	.965	.970	.975	.981	.991	.996	.001	.006	.009	.011	.012	.011
30	.72	.72	.72	.72	.72	.72	.72	.73	.73	.74	.74	.75	.76	.77	.77	.78	.78	.78	.78	.78
*021*018*015*013*013*014*017								*021*025*031*036*042					*052*057*062*066*068*070						*069*068*064*060*054*047	
45	.76	.76	.75	.75	.76	.76	.76	.77	.77	.78	.78	.79	.80	.81	.81	.82	.82	.82	.82	.81
*072*069*067*066*067*069*072								*077*082*087*093*099					*108*113*117*121*123*123						*122*122*116*110*103*095	
1000	.79	.79	.79	.79	.79	.79	.79	.80	.81	.82	.82	.82	.83	.84	.84	.85	.85	.85	.85	.85
*118*116*115*115*116*116*119*122								*128*133*139*145*151					*160*165*168*171*172*172						*170*167*162*156*148*140	
15	.82	.82	.82	.82	.82	.82	.82	.83	.84	.85	.85	.86	.87	.87	.88	.88	.89	.89	.89	.88
*160*158*157*158*160*164*168								*174*180*186*192*198					*207*211*214*216*217*216						*213*209*203*196*188*179	
30	.85	.84	.85	.85	.85	.85	.85	.86	.87	.88	.88	.89	.90	.91	.91	.91	.91	.91	.91	.90
*196*195*195*197*197*200*204*209								*216*222*228*234*240					*249*252*255*256*256*255						*251*245*240*232*223*213	
45	.87	.87	.87	.87	.87	.88	.88	.89	.90	.90	.91	.91	.92	.93	.94	.94	.94	.94	.94	.93
*227*227*228*230*234*239*244								*252*258*265*271*277					*285*238*290*291*291*288						*283*273*271*262*253*242	
1100	.89	.89	.89	.89	.89	.89	.89	.91	.92	.92	.93	.94	.95	.95	.96	.96	.96	.96	.95	.94
*253*254*255*255*263*268*275								*282*289*296*302*308					*315*315*320*320*319*316						*310*304*293*287*277*266	
15	.90	.90	.90	.91	.91	.91	.92	.93	.94	.94	.95	.96	.96	.97	.97	.97	.97	.96	.96	.95
*274*275*278*282*287*293*299								*308*315*322*328*334					*341*343*344*344*342*338						*332*325*316*307*296*285	
30	.91	.91	.91	.92	.92	.93	.94	.94	.95	.96	.96	.97	.98	.98	.98	.98	.98	.98	.97	.96
*289*291*294*299*305*311*319								*327*335*342*348*354					*360*362*363*362*359*355						*347*340*331*320*309*297	
45	.92	.92	.92	.93	.93	.94	.94	.95	.96	.97	.97	.98	.99	.99	.99	***	***	***	***	***
*298*301*305*311*317*324*332								*341*349*356*362*368					*374*375*375*374*370*365						*357*349*339*328*317*305	

JAN-APR 0 TABLE B-1

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	DATE												APR													
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1200	.92	.93	.93	.94	.94	.95	.96	.97	.97	.98	.99	*350*357*365*371*376	.94	***	***	***	***	***	*381*382*382*380*376*370	***	.94	.99	.98	.98	.97	
	*302*306*311*317*322*340																				*361*352*342*331*319*306					
15	.92	.93	.93	.94	.94	.95	.96	.97	.97	.98	.99	*352*360*367*373*378	.94	***	***	***	***	***	*383*384*363*360*375*369	.99	.93	.98	.98	.97	.97	
	*305*311*318*325*334*342																				*360*353*359*328*315*302					
30	.91	.92	.92	.93	.93	.95	.96	.97	.97	.98	.98	*349*357*364*370*375	.99	***	***	***	***	***	*379*379*378*374*369*362	.99	.93	.98	.97	.97	.96	
	*294*298*305*313*321*330*338																				*352*342*331*319*306*293					
45	.91	.91	.91	.92	.93	.94	.94	.95	.96	.97	.97	*340*348*355*361*365	.94	***	***	***	***	***	*363*369*367*363*357*350	.98	.97	.97	.96	.95	.95	
	*281*286*294*302*311*320*329																				*339*323*316*304*291*278					
1300	.89	.90	.90	.91	.92	.92	.93	.94	.95	.96	.97	*325*333*340*346*350	.94	***	***	***	***	***	*353*352*350*345*339*331	.97	.96	.95	.95	.94	.93	
	*263*269*277*286*295*305*314																				*319*303*296*284*271*258					
15	.88	.88	.89	.89	.90	.91	.92	.93	.93	.94	.95	*304*313*320*325*329	.96	***	***	***	***	***	*331*330*327*322*315*307	.96	.91	.93	.93	.92	.91	
	*239*246*254*264*274*294*293																				*295*283*271*258*245*232					
30	.86	.86	.87	.87	.88	.89	.90	.91	.92	.92	.93	*278*286*293*299*302	.94	***	***	***	***	***	*304*302*299*293*286*277	.94	.92	.91	.90	.90	.89	
	*211*217*227*237*247*267																				*264*253*240*227*214*201					
45	.83	.84	.84	.85	.86	.87	.88	.89	.89	.90	.91	*247*255*262*267*270	.91	***	***	***	***	***	*271*270*265*259*251*242	.91	.90	.89	.88	.87	.86	
	*177*184*194*204*215*225*236																				*229*217*204*191*177*164					
1400	.80	.81	.82	.83	.83	.84	.85	.86	.87	.87	.88	*210*218*222*229*232	.83	***	***	***	***	***	*232*230*225*219*211*201	.83	.82	.82	.81	.81	.81	
	*137*145*156*167*178*188*199																				*188*175*163*149*136*123					
15	.77	.78	.79	.79	.80	.81	.82	.82	.84	.84	.85	*168*176*182*186*189	.85	***	***	***	***	***	*183*186*181*174*165*155	.85	.83	.82	.81	.81	.80	
	*094*102*113*124*135*146*157																				*142*129*116*103*090*077					
30	.74	.75	.76	.77	.78	.79	.80	.80	.81	.81	.82	*121*128*134*139*141	.82	***	***	***	***	***	*140*137*131*124*115*105	.82	.80	.79	.78	.77	.76	
	*045*054*065*076*088*099*110																				*091*078*065*052*039*026					
45	.70	.71	.72	.72	.73	.74	.75	.76	.77	.77	.78	*069*076*082*086*088	.76	***	***	***	***	***	*086*082*077*069*060*049	.76	.75	.74	.73	.73	.72	
	*992*001*013*024*036*047*058																				*035*022*039*096*083*071					

JAN-APR 0 TABLE B-1 SOLAR PARAMETERS CCS Z X0 (W/m**2.) *** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	JAN					FEB					DATE					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1500	.66	.67	.68	.68	.69	.69	.70	.71	.72	.73	.73	.74	.74	.74	.74	.73	.73	.72	.71	.71	.70	.69	.68	.68	
	935	944	956	968	980	991	002		*012	*020	*025	*029	.030	*023	*024	*018	*010	*000	989	975	962	949	936	924	912
15	.62	.62	.63	.64	.65	.66	.67	.68	.68	.69	.69	.69	.69	.69	.69	.69	.69	.68	.67	.67	.66	.65	.64	.64	.63
	873	883	895	907	919	931	941	952	959	964	967	968	965	961	954	946	936	925	911	893	885	873	860	849	
30	.57	.58	.59	.60	.61	.61	.62	.63	.64	.64	.64	.65	.63	.64	.64	.64	.63	.62	.62	.61	.60	.59	.59	.58	
	808	818	831	843	855	866	876	887	893	898	901	902	893	887	878	868	857	843	835	817	805	793	782		
45	.52	.53	.54	.55	.56	.57	.57	.58	.59	.59	.59	.59	.60	.59	.59	.58	.58	.57	.56	.56	.55	.54	.53	.53	
	740	750	762	775	787	798	808	818	824	829	831	832	823	822	815	807	796	785	771	753	745	734	722	712	
1600	.47	.48	.49	.50	.51	.51	.52	.53	.54	.54	.54	.54	.53	.54	.54	.53	.52	.52	.51	.50	.49	.49	.48	.47	
	668	678	691	703	715	726	736	746	752	756	758	758	753	748	740	732	721	710	696	684	671	660	649	639	
15	.42	.43	.44	.45	.45	.46	.47	.48	.48	.49	.49	.49	.49	.48	.48	.47	.46	.46	.45	.44	.44	.43	.42	.42	
	593	604	617	629	641	652	661	670	676	680	682	681	676	670	662	652	643	632	618	605	594	583	572	563	
30	.37	.37	.38	.39	.40	.41	.41	.42	.43	.43	.43	.43	.43	.43	.42	.42	.41	.40	.39	.39	.38	.37	.37	.36	
	516	527	540	552	564	574	583	592	598	601	602	601	595	589	582	572	562	551	537	525	514	503	493	485	
45	.31	.32	.33	.33	.34	.34	.36	.36	.37	.37	.37	.37	.37	.37	.36	.35	.34	.33	.33	.32	.31	.31	.30		
	437	447	460	472	494	494	503	511	516	519	520	519	513	506	498	489	479	468	454	443	432	422	412	404	
1700	.25	.26	.27	.28	.29	.29	.30	.30	.31	.31	.31	.31	.31	.30	.30	.29	.29	.28	.27	.25	.26	.25	.24	.24	
	356	366	379	391	402	412	421	429	433	436	436	434	427	421	413	404	393	382	369	353	348	338	329	322	
15	.19	.20	.21	.22	.23	.23	.24	.24	.25	.25	.25	.25	.25	.24	.24	.23	.22	.22	.21	.20	.19	.19	.18	.18	
	273	283	296	308	319	328	336	344	348	350	350	348	341	334	326	316	306	296	283	272	262	253	245	238	
30	.13	.14	.15	.16	.17	.17	.18	.18	.19	.19	.19	.19	.18	.18	.17	.17	.16	.15	.14	.14	.13	.12	.11		
	189	199	212	223	234	243	251	257	261	263	262	260	252	245	237	228	218	207	195	185	176	167	160	154	
45	.07	.08	.09	.10	.11	.11	.12	.12	.12	.12	.12	.12	.12	.11	.11	.10	.09	.09	.08	.07	.07	.06	.06	.05	
	104	115	127	138	148	157	164	170	173	174	174	171	163	156	147	138	128	118	106	97	98	98	97	94	

JAN-APR 0

TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.)

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					JUL					AUG				
	5	10	15	20	30	5	10	15	20	30	5	10	15	20	30	5	10	15	20	30
0600	.02	.02	.02	.02	.01	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
020	021	021	020	018	015	009	004	000	000	000	000	000	000	000	000	000	000	000	000	000
15	.08	.08	.08	.08	.07	.07	.06	.06	.05	.05	.04	.04	.04	.04	.04	.04	.04	.04	.04	.06
104	105	104	103	100	096	090	084	079	073	067	062	057	053	049	047	046	047	049	053	058
30	.14	.14	.14	.14	.13	.13	.12	.12	.11	.11	.10	.10	.10	.10	.10	.10	.10	.11	.11	.13
188	188	187	184	181	176	170	164	158	152	146	141	136	132	130	128	128	129	132	137	143
45	.20	.20	.20	.20	.19	.19	.18	.18	.17	.17	.16	.16	.16	.16	.16	.16	.16	.17	.18	.19
272	271	269	265	261	256	249	243	237	231	225	220	215	212	209	203	209	211	215	220	227
0700	.26	.26	.26	.26	.25	.25	.24	.24	.23	.23	.23	.22	.22	.22	.22	.22	.22	.22	.23	.24
354	352	349	345	340	335	327	321	314	308	303	298	293	290	288	288	289	291	296	302	310
15	.32	.32	.32	.32	.31	.31	.30	.30	.29	.29	.28	.28	.28	.28	.28	.28	.28	.29	.30	.31
435	432	428	424	418	412	404	397	391	384	379	374	370	367	366	366	368	371	376	383	391
30	.38	.38	.38	.37	.37	.36	.36	.35	.35	.34	.34	.34	.34	.33	.33	.34	.34	.35	.36	.37
513	510	506	500	494	487	479	472	465	459	454	449	445	443	442	443	445	448	455	462	471
45	.44	.44	.43	.43	.42	.42	.41	.41	.40	.40	.39	.39	.39	.39	.39	.40	.40	.41	.41	.43
590	586	581	575	568	561	552	545	538	532	526	522	519	517	516	517	520	524	532	533	549
0800	.49	.49	.49	.48	.47	.47	.46	.46	.45	.45	.45	.45	.44	.44	.45	.45	.45	.46	.46	.47
664	659	653	647	639	632	623	615	608	602	597	593	590	589	588	590	593	598	606	614	624
15	.55	.54	.54	.54	.53	.53	.52	.51	.51	.50	.50	.50	.50	.50	.50	.50	.50	.51	.52	.53
735	730	723	716	708	700	691	663	676	670	665	661	656	657	653	650	664	669	678	687	697
30	.60	.59	.59	.58	.58	.57	.56	.56	.56	.55	.55	.55	.55	.55	.55	.56	.56	.57	.58	.59
803	797	790	782	774	765	756	748	741	735	730	726	724	725	727	732	737	747	755	767	779
45	.65	.64	.64	.63	.62	.62	.61	.61	.60	.60	.60	.59	.59	.60	.60	.60	.61	.62	.62	.64
868	861	853	845	836	827	817	810	803	797	792	789	787	787	788	791	796	803	812	822	833

MAY-AUG 0

TABLE 8-1 SOLAR PARAMETERS COS Z
X0 (W/M**2.)

*** SIGNIFIES COS Z
ADD 1000 TO VALUES PRECEDED BY *

NST	MAY										JUN										JUL										AUG									
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30										
0900	.69	.69	.68	.68	.67	.67	.66	.65	.65	.64	.64	.65	.65	.64	.64	.64	.64	.65	.66	.63	.67	.68	.69	.70	.875	.885	.895	.909	.922	.935										
929	921	913	904	895	886	877	868	861	855	851	848	840	836	848	852	857	864	870	871	.72	.72	.73	.74																	
15	.73	.73	.72	.72	.71	.71	.70	.70	.69	.69	.68	.68	.68	.68	.69	.69	.69	.70	.71	.72	.72	.73	.74																	
986	977	968	959	950	940	930	922	915	910	906	903	902	902	905	909	915	922	933	944	.55	.968	.981	.995																	
30	.77	.77	.76	.76	.75	.74	.74	.73	.73	.73	.72	.72	.72	.72	.72	.73	.73	.74	.74	.75	.75	.77	.77	.78																
*038	*029	*020	*010	*001	991	981	973	966	961	957	954	954	955	958	962	968	976	988	995	.010	.023	*036	*050																	
45	.81	.80	.80	.79	.79	.78	*027	*019	*013	*007	*004	*002	*001	*003	*006	*011	*018	*026	*038	*049	.051	*074	*087	*101																
1000	.84	.83	.83	.82	.82	.81	*130	*120	*110	*099	*089	*080	*069	*061	*055	*050	*046	*045	*045	*047	*050	*056	*063	*071	*084	*095	*107	*120	*134	*147										
15	.87	.86	.86	.85	.84	.84	*169	*159	*148	*137	*127	*117	*106	*099	*092	*088	*085	*083	*084	*086	*090	*096	*103	*112	*125	*135	*149	*162	*175	*188										
30	.89	.89	.88	.88	.87	.86	*203	*192	*181	*170	*159	*149	*139	*131	*125	*121	*118	*117	*118	*121	*125	*131	*139	*148	*161	*173	*185	*198	*211	*224										
45	.92	.91	.90	.89	.88	.86	*231	*220	*209	*198	*187	*177	*167	*159	*154	*149	*147	*146	*148	*151	*156	*162	*170	*180	*192	*204	*217	*229	*242	*255										
1100	.93	.93	.92	.91	.91	.90	.90	.89	.89	.89	.88	.88	.89	.89	.89	.89	.89	.89	.89	.90	.90	.91	*172	*176	*181	*188	*196	*206	*213	*231	*243	*255	*268	*280						
15	.95	.94	.93	.93	.92	.91	*273	*261	*249	*238	*227	*217	*207	*200	*195	*191	*190	*190	*192	*196	*201	*208	*217	*227	*240	*252	*264	*276	*288	*300										
30	.96	.95	.94	.94	.93	.92	*285	*273	*261	*250	*239	*229	*220	*213	*208	*205	*203	*204	*206	*210	*216	*224	*232	*242	*256	*267	*279	*291	*303	*315										
45	.96	.95	.95	.94	.93	.93	*292	*280	*268	*256	*246	*236	*227	*220	*216	*213	*212	*213	*216	*220	*226	*234	*243	*253	*266	*277	*289	*301	*313	*324										

TABLE B-1 SOLAR PARAMETERS $\cos^2 x_0$ (W/M**2.)

*** SIGNIFIES $\cos^2 z = 1$.
ADD 1000 TO VALUES PRECEDED BY *

MST	MAY										JUN										JUL										AUG									
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30										
1200	.98	.95	.95	.94	.94	.93	.92	.92	.92	.92	.92	.92	.92	.93	.93	.94	.95	.92	.93	.93	.94	.95	.92	.95	.96	.95	.97	.98	.98	.99										
	*294*281*269*258*247*238						*229*223*219*216*216*217							*220*225*231*239*248*258							*271*282*294*305*316*327																			
15	.96	.95	.94	.94	.93	.93	.92	.92	.92	.92	.92	.92	.92	.92	.93	.94	.95	.92	.92	.93	.94	.95	.95	.96	.97	.97	.98	.98	.99											
	*290*277*265*254*243*234						*226*220*216*214*214*215							*219*224*230*238*247*257							*270*281*293*304*314*324																			
30	.95	.94	.94	.93	.93	.92	.92	.91	.91	.91	.91	.92	.92	.92	.93	.94	.94	.92	.92	.93	.94	.94	.95	.96	.96	.97	.97	.98												
	*280*268*256*244*234*226						*217*212*208*207*207*209							*212*213*224*233*242*252							*264*275*281*297*307*316																			
45	.94	.93	.93	.93	.92	.91	.91	.90	.90	.90	.90	.91	.91	.91	.92	.93	.93	.91	.91	.92	.93	.93	.94	.95	.95	.95	.96	.96	.97											
	*265*252*241*230*220*211						*203*198*195*194*195*197							*201*206*213*222*231*241							*253*264*274*284*293*302																			
1300	.93	.92	.91	.91	.90	.90	.89	.89	.89	.89	.89	.89	.89	.89	.89	.89	.89	.89	.89	.89	.89	.89	.91	.92	.92	.92	.93	.94	.95											
	*245*232*220*210*200*192						*184*180*177*176*177*160							*183*190*197*205*214*224							*236*246*251*266*275*282																			
15	.91	.90	.89	.89	.88	.88	.87	.87	.87	.87	.87	.87	.87	.87	.87	.87	.87	.88	.88	.88	.89	.90	.91	.91	.92	.92	.93	.93	.94											
	*219*206*195*184*175*168						*161*156*154*154*155*158							*162*168*176*174*193*202							*214*224*233*242*250*258																			
30	.88	.88	.87	.87	.86	.86	.85	.85	.85	.85	.85	.85	.85	.86	.86	.86	.86	.86	.87	.87	.88	.89	.89	.90	.91	.91	.91	.91												
	*188*176*164*154*145*138						*132*128*126*126*131							*136*142*149*157*166*176							*187*193*215*213*221*227																			
45	.86	.85	.84	.84	.83	.83	.83	.82	.82	.83	.83	.83	.83	.83	.84	.84	.85	.86	.86	.86	.87	.87	.87	.88	.88	.88	.88	.89												
	*152*140*129*119*111*104						*096*095*093*094*096*099							*104*110*118*126*135*144							*155*164*172*179*186*192																			
1400	.83	.82	.81	.81	.80	.80	.80	.80	.80	.80	.80	.80	.80	.81	.81	.82	.82	.83	.83	.84	.84	.85	.85	.86	.86	.86	.86	.86												
	*111*099*088*079*071*065						*059*057*056*057*059*063							*068*074*062*060*068*077							*117*122*133*140*146*151																			
15	.79	.79	.78	.77	.77	.77	.77	.76	.76	.77	.77	.77	.77	.77	.78	.79	.80	.80	.80	.80	.81	.81	.82	.82	.82	.82	.82	.82												
	*065*053*043*034*027*021						*016*014*014*015*018*022							*027*034*034*049*057*066							*075*063*063*069*096*101*105																			
30	.75	.75	.74	.74	.73	.73	.73	.73	.73	.73	.73	.73	.73	.74	.74	.75	.76	.76	.77	.77	.77	.77	.78	.78	.78	.78	.79													
	*014*004 994 985 979 973						969 967 967 969 972 976							982 968 966 003 011 019							*029*035*042*048*052*055																			
45	.71	.71	.70	.70	.69	.69	.69	.69	.69	.69	.69	.69	.69	.70	.70	.71	.72	.72	.73	.73	.74	.74	.74	.74	.74	.74	.74	.74												
	960 949 940 932 926 921						916 916 917 919 922 927							932 939 946 954 961 969							978 984 990 995 995 998*000																			

MAY-AUG 0 TABLE B-1 SCALAR PARAMETERS CC's Z x0 (W/M*-2*) ... SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY -

MST	MAY					JUN					DATE					AUG							
	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1500	.67	.66	.66	.65	.65	.65	.65	.65	.66	.66	.66	.60	.67	.67	.68	.68	.69	.69	.70	.70	.70	.70	
901	891	882	875	869	865	862	862	865	868	873	879	855	852	900	907	915	923	923	933	937	940	941	
15	.62	.62	.61	.61	.61	.60	.61	.61	.61	.62	.62	.63	.63	.64	.64	.64	.65	.65	.65	.65	.65	.65	
838	829	821	814	809	805	803	803	804	807	811	816	822	826	835	842	849	856	863	863	873	876	877	878
30	.57	.57	.56	.56	.56	.56	.56	.56	.56	.57	.57	.58	.58	.58	.59	.59	.60	.60	.60	.61	.61	.60	
772	763	756	750	745	742	741	741	743	746	750	755	761	767	774	781	788	794	800	805	808	810	811	811
45	.52	.52	.51	.51	.51	.51	.51	.51	.51	.52	.52	.53	.53	.54	.54	.55	.55	.55	.55	.55	.55	.55	.55
702	694	687	682	678	676	675	676	678	681	686	691	697	703	710	716	723	728	734	733	741	742	742	740
1600	.47	.46	.46	.46	.46	.46	.46	.46	.46	.47	.47	.48	.48	.49	.49	.49	.50	.50	.50	.50	.50	.50	.50
630	622	616	611	608	606	606	608	610	614	619	624	630	636	643	649	655	660	665	663	670	669	667	667
15	.41	.41	.41	.40	.40	.40	.40	.40	.41	.41	.42	.42	.43	.43	.44	.44	.44	.45	.45	.45	.45	.44	.44
555	548	542	538	536	534	535	537	540	544	549	554	560	566	572	578	584	588	592	593	595	595	594	590
30	.35	.35	.35	.35	.35	.35	.35	.35	.36	.36	.36	.37	.37	.38	.38	.39	.39	.39	.39	.39	.38	.38	.38
477	471	466	463	461	460	461	464	467	472	477	482	483	494	500	505	510	514	518	519	519	518	515	511
45	.30	.29	.29	.29	.29	.29	.29	.29	.30	.30	.31	.31	.32	.33	.33	.33	.33	.33	.33	.33	.32	.32	.32
397	392	388	385	384	384	386	389	393	397	403	408	414	420	425	430	435	438	441	441	441	439	435	430
1700	.24	.23	.23	.23	.23	.23	.23	.24	.24	.25	.25	.26	.26	.27	.27	.27	.27	.27	.27	.27	.26	.26	
316	311	308	306	305	306	309	312	316	321	327	332	334	344	349	353	357	360	362	362	360	357	353	347
15	.17	.17	.17	.17	.17	.17	.18	.18	.18	.19	.19	.20	.20	.20	.21	.21	.21	.21	.21	.21	.20	.20	
233	229	227	225	226	227	230	234	239	244	249	255	261	266	271	275	278	280	281	280	278	274	269	263
30	.11	.11	.11	.11	.11	.11	.12	.12	.13	.13	.13	.14	.14	.15	.15	.15	.15	.15	.15	.15	.14	.14	.13
149	146	144	144	145	147	151	155	160	165	171	177	182	187	192	195	198	199	199	198	195	190	184	177
45	.05	.05	.05	.05	.05	.05	.05	.06	.06	.07	.07	.08	.08	.08	.09	.09	.09	.09	.09	.08	.08	.07	.07
665	663	662	662	664	666	671	676	681	686	692	698	702	706	712	715	717	718	717	715	711	705	699	691

MAY-AUG

0

TABLE B-1

SOLAR PARAMETERS

COS Z

XO (W/M**2.)

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					NOV					DEC						
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30
0600	.01	.01	.02	.03	.04	.05	.05	.06	.07	.07	.07	.07	.07	.06	.05	.04	.03	.02	.01	.00	.00	
	008	018	030	041	052	062	072	080	087	092	095	096	095	092	087	080	071	062	050	048	021	013
15	.07	.08	.09	.10	.10	.11	.12	.12	.13	.13	.13	.12	.13	.12	.12	.11	.10	.10	.04	.07	.06	.05
	095	106	118	129	141	151	161	169	176	181	183	184	183	179	173	166	157	147	136	126	111	098
30	.14	.14	.15	.16	.17	.18	.18	.19	.19	.20	.20	.19	.19	.18	.17	.17	.16	.15	.14	.13	.12	.11
	182	194	206	218	229	240	246	257	264	266	271	272	269	265	259	252	242	232	220	203	165	156
45	.20	.21	.22	.22	.23	.24	.25	.25	.26	.26	.26	.26	.25	.25	.24	.23	.22	.22	.21	.20	.19	.18
	269	281	293	305	316	327	337	345	351	355	357	358	353	351	344	336	327	316	304	291	271	266
0700	.26	.27	.28	.29	.30	.30	.31	.31	.32	.32	.32	.32	.31	.31	.30	.29	.28	.27	.27	.26	.25	.24
	354	365	379	391	403	413	423	430	436	440	442	442	439	434	427	419	409	398	386	374	361	348
15	.32	.33	.34	.35	.36	.36	.37	.37	.38	.38	.38	.37	.37	.36	.36	.35	.34	.33	.32	.31	.30	.29
	437	450	463	475	487	497	507	514	520	524	525	525	521	516	509	500	493	479	467	455	442	429
30	.39	.39	.40	.41	.42	.42	.43	.43	.44	.44	.44	.43	.43	.42	.41	.40	.39	.38	.37	.36	.35	.34
	519	532	545	557	569	580	589	595	602	605	606	605	601	596	588	579	569	558	546	533	521	508
45	.44	.45	.46	.47	.48	.48	.49	.49	.49	.49	.49	.48	.48	.49	.48	.47	.46	.45	.44	.43	.42	.41
	599	612	625	637	649	659	668	675	680	683	683	673	673	665	656	645	634	622	610	594	585	574
0800	.50	.51	.52	.53	.53	.54	.54	.55	.55	.55	.55	.54	.53	.53	.52	.51	.50	.49	.44	.44	.47	.45
	676	689	702	714	726	736	745	752	756	759	758	753	747	739	730	719	708	696	684	672	660	649
15	.56	.56	.57	.59	.59	.59	.60	.60	.60	.60	.60	.59	.59	.58	.57	.56	.55	.54	.53	.52	.51	.50
	750	763	776	789	800	810	818	825	829	831	831	829	821	816	811	800	790	778	767	755	743	721
30	.61	.62	.63	.63	.64	.64	.65	.65	.65	.65	.65	.64	.63	.63	.62	.61	.60	.59	.55	.55	.57	.56
	821	834	847	859	870	880	888	894	898	900	900	897	885	877	867	857	846	834	822	811	800	790
45	.66	.67	.67	.68	.69	.69	.70	.70	.70	.70	.70	.69	.69	.68	.67	.66	.65	.64	.64	.62	.61	.60
	888	901	914	926	937	946	954	960	963	965	964	953	948	941	931	920	909	898	891	878	865	856

SEP-DEC

TABLE B-1 SCALAR PARAMETERS COS Z
X0 (W/m^2.s^-2)1: SIGNIFIES COS Z = 1.
2: 1000 TO VALUES RECEIVED BY

HST	SEP										OCT										NOV									
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
0900	.71	.71	.72	.73	.73	.74	.74	.74	.74	.74	.74	.74	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75	
	952	965	978	989	990	.09	*016	*021	*025	*026	*026	*026	*026	*026	*026	*026	*026	*026	*026	*026	*026	*026	*026	*026	*026	*026	*026	*026	*026	*026
15	.75	.76	.77	.77	.77	.78	.78	.78	.78	.78	.78	.78	.79	.79	.79	.79	.79	.79	.79	.79	.79	.79	.79	.79	.79	.79	.79	.79	.79	
	*011	*024	*037	*048	*052	.067	*074	*079	*081	*082	*083	*083	*083	*083	*083	*083	*083	*083	*083	*083	*083	*083	*083	*083	*083	*083	*083	*083	*083	*083
30	.79	.80	.81	.81	.82	.82	.82	.82	.82	.82	.82	.82	.82	.82	.82	.82	.82	.82	.82	.82	.82	.82	.82	.82	.82	.82	.82	.82	.82	
	*066	*079	*091	*103	*112	.120	*127	*131	*134	*134	*134	*134	*132	*132	*132	*132	*132	*132	*132	*132	*132	*132	*132	*132	*132	*132	*132	*132	*132	*132
45	.83	.84	.84	.84	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	
	*117	*129	*141	*152	*161	.169	*175	*179	*181	*181	*181	*181	*175	*175	*175	*175	*175	*175	*175	*175	*175	*175	*175	*175	*175	*175	*175	*175	*175	*175
1000	.85	.87	.88	.88	.88	.89	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	
	*163	*175	*186	*197	*206	.213	*218	*222	*223	*223	*223	*223	*223	*223	*223	*223	*223	*223	*223	*223	*223	*223	*223	*223	*223	*223	*223	*223	*223	*223
15	.89	.90	.91	.91	.91	.92	.92	.92	.92	.92	.92	.92	.91	.91	.91	.91	.91	.91	.91	.91	.91	.91	.91	.91	.91	.91	.91	.91	.91	
	*203	*215	*227	*236	*245	.251	*256	*259	*260	*259	*257	*257	*257	*257	*257	*257	*257	*257	*257	*257	*257	*257	*257	*257	*257	*257	*257	*257	*257	*257
30	.92	.93	.93	.94	.94	.94	.94	.94	.94	.94	.94	.94	.94	.94	.94	.94	.94	.94	.94	.94	.94	.94	.94	.94	.94	.94	.94	.94	.94	
	*239	*251	*261	*271	*278	.285	*289	*291	*292	*290	*287	*287	*287	*287	*287	*287	*287	*287	*287	*287	*287	*287	*287	*287	*287	*287	*287	*287	*287	*287
45	.94	.95	.95	.96	.96	.96	.96	.96	.96	.96	.96	.96	.96	.96	.96	.96	.96	.96	.96	.96	.96	.96	.96	.96	.96	.96	.96	.96	.96	
	*269	*281	*291	*299	*307	.312	*316	*318	*318	*318	*318	*318	*318	*318	*318	*318	*318	*318	*318	*318	*318	*318	*318	*318	*318	*318	*318	*318	*318	
1100	.96	.97	.97	.97	.97	.98	.98	.97	.97	.97	.97	.97	.96	.96	.96	.96	.96	.96	.96	.96	.96	.96	.96	.96	.96	.96	.96	.96	.96	
	*294	*305	*315	*323	*329	.334	*337	*339	*338	*336	*333	*332	*337	*339	*338	*338	*336	*336	*336	*336	*336	*336	*336	*336	*336	*336	*336	*336	*336	*336
15	.97	.98	.98	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	
	*314	*324	*333	*340	*346	.351	*353	*354	*354	*353	*351	*351	*347	*347	*347	*347	*347	*347	*347	*347	*347	*347	*347	*347	*347	*347	*347	*347	*347	*347
30	.98	.99	.99	***	***	***	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99
	*328	*337	*345	*352	*357	.361	*363	*363	*362	*359	*355	*350	*350	*350	*350	*350	*350	*350	*350	*350	*350	*350	*350	*350	*350	*350	*350	*350	*350	*350
45	.99	.99	***	***	***	***	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99
	*336	*344	*352	*358	*363	.366	*367	*367	*365	*362	*357	*352	*367	*367	*367	*367	*367	*367	*367	*367	*367	*367	*367	*367	*367	*367	*367	*367	*367	*367

MST	SEP	5 10 15 20 25 30	DATE	DEC							
				5 10 15 20 25 30	5 10 15 20 25 30	5 10 15 20 25 30	5 10 15 20 25 30	5 10 15 20 25 30	5 10 15 20 25 30		
1200	.99 *** *** *** *** ***	*338*346*353*353*362*365		*99 .99 .98 .98 .97 *365*365*362*359*354*349	*9 .96 .95 .94 .93 *341 .361-327-321-315-309	.93 .92 .92 .92 .92 .92 .304*301 .301-298*299*301					
15	.99 .99 .99 *** *** ***	*335*342*348*352*356*358		.99 .99 .98 .98 .97 .96 *358*356*354*350*345*359	.99 .95 .94 .93 .93 *332 .325-319-313-307-302	.92 .92 .92 .92 .92 .92 .298*297-296-294*296*293					
30	.98 .99 .99 .99 .99 .98	*325*332*338*342*344*345		.98 .98 .97 .97 .96 .95 *344*342*339*335*322*324	.95 .91 .93 .93 .92 .92 *317 .311-305*299*294*290	.91 .91 .91 .91 .91 .91 .287*283-281-285*288*292					
45	.97 .97 .98 .97 .97 .97	*311*317*321*324*326*326		.97 .96 .96 .95 .94 .94 *325*323*319*315*310*304	.93 .92 .92 .91 .91 .90 *297 .291-285*280*275*272	.90 .90 .90 .90 .90 .90 .269*267-264-271*274*279					
1300	.96 .96 .96 .96 .96 .95	*290*296*299*302*303*302		.95 .94 .94 .93 .93 .92 *300*297*293*289*283*278	.91 .91 .90 .90 .89 .89 *271 .265-260-255*251-243	.88 .88 .88 .88 .88 .88 .247*241-236-231-250*255*260					
15	.94 .94 .94 .94 .93 .93	*264*269*272*273*273*272		.95 .92 .92 .91 .90 .90 *270*266*262*257*252*246	.8 .83 .87 .87 .87 .87 *23 .234-224-225*222-220	.86 .86 .86 .86 .86 .86 .213*220-212-225*230*236					
30	.91 .92 .91 .91 .91 .91	*233*237*239*239*239*237		.90 .89 .89 .88 .89 .87 *234*230*225*220*215*220	.86 .85 .85 .85 .84 .84 *202 .197-193-190*187-186	.84 .84 .84 .84 .84 .84 .186*181-179-174-194*200*207					
45	.89 .89 .89 .88 .88 .88	*197*199*200*200*199*196		.87 .86 .86 .85 .85 .84 *193*188*163*178*172*167	.83 .84 .84 .82 .82 .81 *161 .151-151-149-147-147	.81 .81 .81 .81 .81 .81 .148*152-152-159*165*173					
1400	.86 .86 .85 .85 .85 .84	*155*157*157*156*154*151		.84 .83 .82 .82 .81 .81 *117*142*136*131*125*120	.83 .82 .81 .81 .80 .80 *114 .114-106-104*103-103	.78 .77 .76 .76 .75 .78 .104*107-107-106-105-103					
15	.82 .82 .82 .81 .81 .81	*108*109*109*107*104*100		.80 .79 .79 .78 .77 .77 *095*090*094*079*073*078	.75 .74 .73 .73 .72 .75 *053 .053-052-051-050-051	.75 .74 .73 .73 .72 .76 .057*057-056-055-054-053					
30	.78 .78 .78 .77 .76 .76	*057*057*055*053*049*045		.76 .75 .75 .74 .73 .73 *040*034*028*022*016*011	.72 .71 .71 .71 .71 .71 *.00 .00-000-000-000-001	.71 .71 .71 .71 .71 .71 .023*031*040					
45	.74 .74 .74 .73 .73 .72	*001*000 998 994 990 985		.71 .71 .70 .69 .68 .68 979 973 967 961 953 950	.6 .69 .67 .67 .67 .67 94-93-92-91-90-89	.57 .57 .57 .57 .57 .57 *.47 .47 .47 .47 .47 .47					

TABLE E-1 SOLAR PARAMETERS CGS² (1)
SEP-DEC 0 X0 (A/M-2.)

(1) SIGNIFICANT COS² VALUES PRECEDED BY
(2) 1000 TC VALUES PRECEDED BY

MST	SEP					OCT					NOV					DEC				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
1500	.70	.69	.69	.69	.68	.67	.67	.63	.65	.65	.64	.64	.63	.63	.63	.64	.65	.66	.66	
941	939	936	932	927	921	915	903	902	895	890	885	881	871	867	879	882	877	873	869	
15	.65	.65	.64	.64	.63	.62	.62	.61	.60	.59	.59	.57	.57	.58	.58	.58	.58	.57	.57	
876	874	870	865	859	853	846	840	833	827	821	817	813	811	810	811	813	817	822	829	
30	.60	.60	.59	.59	.58	.57	.57	.56	.55	.54	.54	.53	.53	.53	.53	.53	.54	.54	.57	
808	805	800	795	788	781	774	767	760	754	749	744	741	734	733	731	744	748	754	761	
45	.55	.54	.54	.53	.52	.52	.51	.50	.50	.49	.49	.48	.48	.48	.48	.48	.48	.48	.52	
737	733	727	721	714	706	699	692	685	678	673	669	661	656	655	657	671	676	683	691	
1600	.49	.49	.48	.47	.47	.46	.45	.45	.44	.43	.43	.42	.42	.42	.42	.42	.43	.43	.43	
662	657	651	644	636	629	621	613	606	600	595	591	581	577	573	571	595	601	609	617	
15	.43	.43	.42	.42	.41	.40	.39	.39	.38	.38	.37	.37	.36	.36	.36	.37	.37	.36	.36	
585	579	572	564	556	548	540	532	525	519	514	510	502	508	509	512	517	524	532	541	
30	.37	.37	.36	.36	.35	.34	.33	.33	.32	.32	.31	.31	.31	.31	.31	.31	.32	.32	.32	
505	498	491	482	474	465	456	448	441	435	430	427	425	.416	.428	.432	.437	.444	.453	.462	
45	.31	.31	.30	.29	.29	.28	.27	.26	.26	.25	.25	.24	.25	.25	.25	.26	.26	.27	.27	
423	415	407	398	389	380	371	363	356	350	345	342	341	.342	.344	.349	.355	.363	.372	.382	
1700	.25	.25	.24	.23	.22	.21	.21	.20	.20	.19	.18	.15	.18	.19	.19	.20	.21	.21	.22	
339	331	322	312	303	293	284	276	269	263	259	256	253	.255	.260	.265	.271	.279	.289	.303	
15	.19	.18	.17	.17	.16	.15	.14	.14	.13	.13	.12	.12	.12	.12	.13	.13	.14	.15	.15	
253	245	235	225	215	205	196	188	181	175	171	169	163	.170	.174	.179	.185	.195	.205	.213	
30	.12	.12	.11	.10	.09	.09	.08	.07	.07	.06	.06	.06	.06	.06	.07	.07	.08	.09	.09	
167	157	147	137	127	117	107	959	932	886	832	800	031	.033	.037	.093	.101	.110	.120	.132	
45	.06	.05	.04	.04	.03	.02	.01	.01	.00	.00	.00	.00	.00	.00	.00	.01	.02	.03	.03	
080	070	059	048	038	027	018	009	002	000	000	000	000	000	000	000	.015	.024	.035	.047	

SEP-DEC

0

TABLE B-1 SOLAR PARAMETERS

COS Z

XC

*** SIGNIFICES COS² = 1.

ADD 1000 TO VALUES PRECEDED BY *

MST	JAN					FEB					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
1000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
1500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
2000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
2500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
3000	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
0100	.012	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
0400	.07	.06	.05	.03	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
0500	.092	.079	.063	.046	.029	.011	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
0600	.112	.11	.10	.09	.08	.07	.05	.04	.03	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	
0700	.172	.159	.143	.127	.110	.093	.077	.057	.042	.028	.014	.002	.000	.000	.000	.000	.000	.000	.000	
0800	.252	.240	.224	.208	.192	.175	.159	.140	.126	.112	.099	.037	.05	.04	.03	.03	.02	.01	.00	
0900	.30	.23	.23	.22	.20	.19	.18	.17	.16	.15	.14	.12	.11	.11	.10	.09	.08	.07	.06	
1000	.45	.29	.28	.27	.26	.25	.23	.22	.21	.20	.19	.18	.17	.17	.16	.15	.14	.13	.12	
1100	.411	.399	.385	.369	.354	.339	.324	.306	.292	.279	.267	.256	.240	.230	.221	.213	.205	.197	.187	.173
1200	.0700	.35	.34	.33	.32	.31	.30	.29	.28	.27	.26	.24	.23	.22	.22	.21	.20	.19	.18	
1300	.489	.478	.464	.449	.434	.419	.405	.388	.375	.362	.351	.339	.323	.314	.305	.296	.288	.279	.269	.259
1400	.566	.555	.541	.527	.513	.499	.485	.469	.456	.444	.433	.422	.406	.396	.367	.378	.369	.360	.349	.333
1500	.40	.39	.38	.37	.36	.35	.34	.33	.33	.32	.31	.30	.29	.28	.27	.26	.25	.24	.23	
1600	.641	.631	.618	.604	.591	.577	.564	.549	.536	.525	.513	.503	.487	.477	.468	.459	.450	.440	.428	.417
1700	.715	.705	.692	.679	.666	.653	.641	.626	.614	.603	.592	.582	.565	.557	.547	.537	.528	.517	.504	.493

TABLE B-1 SOLAR PARAMETERS

 $\cos^2 \chi_0$ (W/m²*2.)

*** SIGNIFIES $\cos^2 \chi = 1$
ADD 1000 TO VALUES PRECEDED BY *

MST	JAN										FEB										DATE										MAR										APR									
	1	5	10	15	20	25	30	5	10	15	20	25	25	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30													
0800	.56	.55	.54	.53	.52	.51		.50	.49	.48	.48	.47		.46	.46	.45	.44	.44	.43	.46	.42	.41	.40	.39	.38																									
786	777	765	752	740	728	716		702	690	680	669	659		643	633	624	614	603	593	579	567	554	540	526	512																									
15	.60	.60	.59	.58	.57	.56		.55	.54	.54	.53	.53		.52	.51	.50	.50	.49	.48		.48	.47	.45	.44	.43																									
855	846	834	823	811	800	788		775	764	754	743	733		718	703	698	687	676	665		650	634	.624	.610	.595	.580																								
30	.65	.64	.64	.63	.62	.61		.60	.59	.59	.58	.58		.57	.56	.56	.55	.54	.54		.53	.52	.51	.50	.49	.48																								
920	912	901	890	879	869	858		845	835	825	815	805		783	779	769	758	747	735		719	705	.691	.676	.660	.644																								
45	.69	.69	.68	.68	.67	.66		.65	.64	.64	.63	.63		.62	.61	.60	.60	.59	.58		.57	.55	.55	.53	.52																									
983	975	965	955	945	935	925		913	903	893	883	874		858	847	837	825	813	801		785	770	.755	.739	.723	.706																								
0900	.74	.73	.73	.72	.71	.71		.69	.69	.68	.68	.67		.66	.66	.65	.64	.64	.63		.62	.61	.60	.59	.58	.57																								
	042	*035*	*026*	*016*	*007	997	988		977	967	958	948	939		923	912	901	889	877	863		846	831	815	798	781	764																							
15	.78	.77	.77	.76	.75	.75		.74	.73	.73	.72	.72		.71	.70	.70	.69	.68	.67		.66	.65	.64	.63	.62	.61																								
	098	*091*	*083*	*074*	*065*	*056*	*048		*037*	*028*	*019*	*010*	*000		984	973	962	949	936	922		904	883	872	854	836	818																							
30	.81	.81	.80	.80	.79	.79		.78	.77	.77	.76	.76		.75	.74	.74	.73	.72	.71		.70	.69	.68	.67	.66	.64																								
	150	*144*	*136*	*128*	*120*	*112*	*104		*094*	*085*	*076*	*067*	*058		*041*	*030*	*018*	*006	992	977		958	942	.924	.906	.887	.868																							
45	.85	.84	.84	.83	.83	.82		.81	.81	.80	.80			.79	.78	.77	.77	.76	.75		.74	.73	.72	.70	.69	.68																								
	197	*192*	*185*	*178*	*170*	*163*	*155		*146*	*138*	*129*	*121*	*111		*094*	*083*	*071*	*057*	*043*	*028		*008*	990	972	953	934	914																							
1000	.88	.87	.87	.87	.86	.86		.85	.84	.84	.84	.83		.82	.82	.81	.80	.79	.78		.77	.76	.75	.73	.72	.71																								
	241	*236*	*229*	*223*	*217*	*210*	*203		*194*	*186*	*178*	*169*	*160		*143*	*131*	*119*	*105*	*090	*074		*053*	*035	.015	996	976	956																							
15	.90	.90	.90	.89	.89	.89		.88	.88	.87	.87	.86		.85	.85	.84	.83	.82	.81		.80	.79	.78	.76	.75	.74																								
	279	*275*	*270*	*264*	*258*	*252*	*246		*239*	*230*	*222*	*214*	*204		*187*	*175*	*162*	*147*	*132*	*115		*093*	*074*	.055	*034*	013	992																							
30	.93	.93	.92	.92	.91	.91		.91	.90	.90	.90	.89		.88	.88	.87	.86	.85	.84		.88	.87	.86	.85	.84	.83																								
	314	*310*	*305*	*300*	*295*	*290*	*284		*277*	*270*	*262*	*253*	*244		*226*	*211*	*200*	*185*	*169*	*151		*129*	*104*	.089	.068*	.046*	.025																							
45	.95	.95	.94	.94	.94	.94		.93	.93	.92	.92	.92		.91	.90	.89	.88	.87	.86		.85	.84	.82	.81	.79	.78																								
	343	*340*	*336*	*332*	*328*	*323*	*318		*311*	*304*	*296*	*288*	*278		*260*	*247*	*233*	*218*	*201*	*183		*159*	*139*	.118*	.096*	.074*	.052																							

JAN-APR 20 S TABLE B-1 SOLAR PARAMETERS COS Z = 1.

COS Z X0 (W/M*2.)

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	1	5	10	15	20	25	30	DATE						5	10	15	20	25	30										
								1	5	10	15	20	25																
1100	.97	.96	.96	.96	.96	.95	.95	.95	.95	.95	.94	.94	.94	.93	.92	.91	.90	.89	.88	.87	.85	.84	.83	.81	.80				
	*367*365*362*359*355*351*346							*339*333*326*317*307						*280	*276	*261	*245	*228	*209		*135*164	*142	*119	*097	*074				
15	.98	.98	.98	.97	.97	.97	.97	.97	.97	.96	.96	.95	.95	.94	.94	.93	.92	.91	.90		.88	.87	.85	.84	.82	.81			
	*387*385*383*380*377*373*369							*363*357*350*341*332						*313	*299	*264	*267	*249	*230		*205*183	*161	*138	*115	*092				
30	.99	.99	.99	.99	.99	.98	.98	.98	.98	.98	.97	.97	.97	.96	.95	.94	.93	.92	.91		.89	.85	.85	.83	.82				
	*401*400*398*396*394*391*387							*382*376*369*360*350						*331	*317	*301	*284	*265	*245		*220*117	*174	*151	*127	*104				
45	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.98	.98	.97	.96	.95	.94	.93	.91		.90	.83	.87	.85	.84	.82			
	*410*409*409*407*406*403*400							*395*389*382*374*363						*344	*329	*313	*295	*276	*255		*229*205	*182	*158	*134	*111				
1200	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.98	.98	.97	.96	.95	.94	.93	.92		.90	.83	.87	.86	.84	.82			
	*414*414*414*413*412*410*407							*403*397*390*332*371						*351	*336	*319	*301	*281	*260		*233*203	*185	*160	*136	*112				
15	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.98	.98	.97	.96	.95	.94	.93	.92		.90	.83	.87	.85	.84	.82			
	*412*413*414*414*413*412*409							*405*400*393*384*373						*353	*337	*320	*301	*281	*259		*231*207	*152	*157	*133	*109				
30	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.99	.98	.98	.97	.96	.95	.94	.93	.91		.89	.83	.85	.83	.82				
	*405*407*408*409*409*408*406							*402*397*390*381*370						*340	*323	*315	*296	*275	*252		*224*199	*174	*149	*124	*100				
45	.98	.99	.99	.99	.99	.99	.99	.99	.99	.99	.98	.98	.97	.99	.95	.94	.93	.92	.90		.89	.87	.85	.84	.82	.80			
	*394*396*398*399*400*399*397							*393*388*381*372*361						*333	*323	*305	*285	*263	*240		*211*183	*111	*135	*110	*086				
1300	.97	.97	.98	.98	.98	.96	.98	.98	.97	.97	.96	.96	.96	.98	.97	.96	.95	.94	.93	.92	.91	.89		.87	.85	.84	.82	.81	.79
	*377*379*382*384*385*385*383							*379*374*367*353*347						*324	*308	*289	*269	*246	*223		*193*163	*142	*116	*091	*066				
15	.96	.96	.96	.96	.97	.97	.97	.97	.96	.96	.96	.95	.95	.97	.96	.95	.92	.90	.89	.87		.86	.81	.82	.81	.79	.77		
	*354*358*361*363*365*365*364							*360*355*348*333*327						*304	*287	*268	*247	*224	*200		*170*144	*118	*092	*067	*042				
30	.94	.94	.94	.95	.95	.95	.95	.95	.95	.95	.94	.94	.93	.92	.91	.90	.88	.87	.85		.83	.82	.80	.78	.77	.75			
	*327*331*335*338*340*340*339							*336*330*323*314*302						*278	*261	*241	*220	*196	*172		*142*115	*115	*063	*037	*013				
45	.92	.92	.92	.93	.93	.93	.93	.93	.93	.93	.92	.92	.91	.90	.89	.88	.87	.86	.83		.81	.74	.76	.74	.73				
	*295*299*304*307*309*310*309							*306*301*293*284*272						*247	*229	*209	*187	*164	*139		*108*082	*055	*029	*003	*979				

JAN-APR 20 S TABLE B-1

SOLAR PARAMETERS COS 2 Y0 (W/m--2)

*** SIGNIFIES COS 2 = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	DATE										DATE																	
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30									
1400	.89	.89	.90	.90	.90	.90	.90	.90	.90	.89	.89	.89	.89	.87	.86	.85	.83	.82	.80	.78	.75	.73	.71	.70				
	*259*263*268*272*274*275*275													*271*266*258*248*236	*211*193*172*150*126*101													
15	.86	.86	.87	.87	.87	.88	.88	.88	.87	.87	.86	.86	.86	.84	.83	.82	.80	.79	.77	.75	.73	.72	.70	.68	.66			
	*217*222*228*232*235*236*235													*232*226*219*208*196	*170*151*130*108*083*058													
30	.83	.83	.84	.84	.84	.84	.84	.84	.84	.84	.83	.82	.82	.81	.80	.78	.77	.75	.74	.72	.70	.68	.66	.65	.63			
	*172*177*183*187*190*192*191													*187*182*174*163*150	*124*105*084*061*036*010													
45	.79	.80	.80	.81	.81	.81	.81	.81	.81	.80	.80	.79	.79	.77	.76	.75	.73	.72	.70	.68	.65	.64	.62	.61	.59			
	*122*127*134*138*142*143*142													*139*133*125*114*101	*074*054*032*009	984 958	926 893	872 846	821 797									
1500	.75	.76	.76	.77	.77	.77	.77	.77	.77	.76	.76	.75	.75	.73	.72	.71	.69	.67	.66	.64	.62	.60	.58	.57	.55			
	*068*074*080*085*089*090*089													*086*080*071*060*046	*019 999	977 953	928 902	870 843	816 790	765 742								
15	.71	.72	.72	.73	.73	.73	.73	.73	.73	.72	.72	.71	.71	.63	.68	.66	.65	.63	.61	.59	.57	.56	.54	.52	.51			
	*010*017*022*028*032*033*033													*029*022*014*002	998	960 940	917 893	868 841	809 782	755 730	705 682							
30	.67	.68	.68	.68	.69	.69	.69	.69	.68	.68	.67	.66	.66	.65	.63	.62	.60	.58	.57	.55	.53	.51	.49	.48	.46			
	949 956	962 968	971 972	973 972	968 961	952 940	926	968 961	952 940	926	968 961	952 940	926	897 877	854 830	804 777	745 713	692 666	642 619									
45	.63	.63	.64	.64	.64	.64	.64	.64	.64	.63	.63	.62	.62	.60	.58	.57	.55	.54	.52	.50	.48	.46	.44	.43	.41			
	885 891	898 904	904 907	909 908	903 896	887 875	860	903 896	887 875	860	903 896	887 875	860	831 810	787 762	737 710	678 651	625 600	576 554									
1600	.58	.58	.59	.59	.59	.60	.60	.59	.59	.58	.58	.57	.57	.55	.53	.52	.50	.48	.47	.44	.43	.41	.39	.37	.36			
	817 824	831 837	840 841	840	835 828	818 806	791	761 740	716 692	666 639	761 740	716 692	666 639	607 581	555 530	506 485												
15	.53	.53	.54	.54	.55	.55	.55	.54	.54	.53	.52	.51	.51	.50	.48	.47	.45	.43	.41	.39	.37	.35	.34	.32	.31			
	747 754	761 767	770 771	770	764 757	747 734	718	688 667	643 618	592 566	688 667	643 618	592 566	534 503	482 458	435 413												
30	.48	.48	.49	.49	.49	.49	.49	.49	.49	.49	.48	.47	.46	.44	.43	.41	.39	.38	.36	.34	.32	.30	.28	.27	.25			
	675 682	689 694	697 698	697	691 683	673 659	643	613 591	567 542	516 490	613 591	567 542	516 490	458 432	407 383	360 340												
45	.42	.43	.43	.44	.44	.44	.44	.44	.43	.43	.42	.41	.41	.38	.37	.35	.34	.32	.30	.28	.26	.25	.24	.23	.21	.20		
	600 607	615 620	623 621	621	615 607	596 582	566	535 513	489 464	438 412	535 513	489 464	438 412	380 354	330 306	284 264												

JAN-APR 20 S TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.) JAN-APR 20 S SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY *

NST	JAN					FEB					MAR					APR								
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30					
1700	.37	.38	.39	.38	.39	.39	.39	.38	.38	.37	.36	.35	.33	.31	.30	.28	.26	.24	.22	.20	.17	.15	.14	
524	531	538	543	543	546	546	544	537	529	517	503	486	455	433	409	384	358	332	300	275	251	228	206	187
15	.32	.32	.33	.33	.33	.33	.33	.33	.32	.31	.30	.29	.27	.25	.24	.22	.20	.18	.16	.14	.13	.11	.09	.08
446	453	460	465	465	467	467	464	457	448	437	422	405	373	351	327	302	276	250	219	194	170	148	127	109
30	.26	.26	.27	.27	.27	.27	.27	.27	.26	.25	.24	.23	.21	.19	.18	.16	.14	.12	.10	.09	.07	.05	.04	.02
367	374	381	386	388	387	384	376	367	355	340	322	290	267	243	218	193	167	137	112	089	067	047	029	
45	.20	.21	.21	.22	.22	.22	.21	.21	.20	.19	.18	.17	.15	.13	.12	.10	.08	.06	.04	.02	.01	.00	.00	.00
288	295	301	305	307	306	302	294	284	272	256	239	206	183	159	134	109	083	053	023	007	000	000	000	
1800	.15	.15	.16	.16	.16	.16	.16	.15	.14	.13	.12	.11	.09	.07	.05	.04	.02	.00	.00	.00	.00	.00	.00	.00
208	214	221	224	226	224	220	211	201	188	172	154	121	098	074	049	024	000	000	005	000	000	000	000	
15	.09	.10	.10	.10	.10	.10	.10	.09	.08	.07	.06	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
048	054	060	062	063	060	055	045	034	020	004	000	000	000	000	000	000	000	000	000	000	000	000	000	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

JAN-APR 20 S

TABLE B-1

SOLAR PARAMETERS $\cos Z_{X0}$ ($w/m^2 \cdot 2.$)

*** SIGNIFIES $\cos Z = 1$.
ADD 1000 TO VALUES PRECEDED BY +

MST	MAY					JUN					DATE					AUG						
	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25
0600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.04	.03	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.03	.05
45	.10	.09	.08	.07	.06	.05	.05	.04	.03	.03	.02	.02	.02	.02	.03	.03	.04	.05	.05	.08	.09	.11
0700	.15	.14	.14	.13	.12	.11	.10	.09	.08	.08	.08	.08	.08	.08	.09	.10	.11	.12	.13	.15	.16	.18
15	.21	.20	.19	.18	.17	.16	.16	.15	.14	.14	.13	.13	.13	.13	.14	.14	.15	.16	.18	.19	.21	.22
30	.26	.26	.25	.24	.23	.22	.21	.20	.20	.19	.19	.18	.18	.18	.19	.19	.20	.21	.22	.23	.25	.28
45	.32	.31	.30	.29	.28	.27	.26	.25	.24	.24	.24	.24	.24	.24	.24	.25	.26	.27	.29	.30	.32	.35
0800	.37	.36	.35	.34	.33	.32	.31	.30	.29	.29	.29	.29	.29	.29	.29	.30	.31	.33	.34	.35	.37	.39
15	.42	.41	.40	.39	.38	.37	.36	.35	.34	.34	.34	.33	.33	.34	.34	.35	.36	.38	.39	.41	.42	.44
30	.47	.46	.45	.43	.42	.41	.40	.40	.39	.39	.38	.38	.38	.38	.39	.39	.40	.41	.43	.44	.46	.49
45	.51	.50	.49	.48	.47	.46	.45	.44	.43	.43	.43	.43	.43	.43	.43	.44	.45	.46	.47	.49	.50	.52
0800	497	482	467	453	439	426	411	401	392	386	381	378	378	381	386	393	403	416	435	453	473	496
15	564	548	533	518	503	490	475	465	456	449	445	443	443	445	451	459	470	483	502	521	542	565
30	628	612	596	580	565	551	536	526	517	510	505	504	504	508	513	522	533	547	567	585	607	630
45	689	672	655	639	624	610	594	584	575	568	564	563	563	567	573	582	594	608	629	643	670	693

TABLE B-1 SOLAR PARAMETERS $\cos^2 X_0$ (W/M•°C)*** SIGNIFIES $\cos Z = 1$.
ADD 1000 TO VALUES PRECEDED BY +PREVIOUS PAGE
IS BLANK

NST	MAY					JUN					DATE					AUG								
	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0900	.55	.54	.53	.52	.51	.50	.49	.48	.47	.47	.47	.47	.47	.48	.48	.49	.50	.52	.53	.55	.56	.58	.60	
	746	728	711	695	679	664	649	638	630	623	619	618	619	623	630	639	651	666	687	707	729	753	778	804
15	.59	.58	.57	.56	.55	.54	.53	.52	.51	.51	.51	.51	.51	.51	.52	.52	.53	.54	.56	.57	.59	.60	.62	.64
	799	781	763	746	730	716	700	690	681	675	671	670	671	676	683	693	705	721	742	762	785	808	834	860
30	.63	.62	.61	.59	.58	.57	.56	.55	.55	.54	.54	.54	.54	.55	.55	.56	.57	.58	793	814	835	860	886	912
	849	830	812	795	778	763	748	737	729	723	719	718	720	725	732	743	756	771						
45	.66	.65	.64	.63	.62	.61	.60	.59	.58	.58	.58	.58	.58	.58	.59	.60	.62	.63	.65	.66	.68	.70	.71	
	894	875	856	839	822	807	791	781	772	766	763	763	765	770	778	789	802	818	840	861	894	908	934	960
1000	.70	.68	.67	.66	.65	.64	.63	.62	.61	.61	.61	.61	.61	.61	.62	.63	.64	.65	.66	.68	.73	.75		
	935	916	896	878	862	847	831	820	812	806	803	803	806	811	820	831	845	861	883	904	927	952	977	*003
15	.72	.71	.70	.68	.67	.66	.65	.64	.64	.64	.63	.63	.64	.64	.64	.65	.66	.67	.68	.69	.71	.72	.74	.76
	972	952	932	914	897	882	866	855	847	842	839	839	842	848	857	869	883	899	922	943	966	990	*016	*042
30	.75	.73	.72	.71	.70	.69	.67	.67	.66	.66	.66	.66	.66	.66	.67	.67	.68	.69	.70	.72	.73	.75	.77	.78
	*004	983	963	945	927	912	897	886	878	873	871	871	875	881	890	902	916	933	956	973	001	025	*050	*076
45	.77	.75	.74	.73	.72	.70	.69	.69	.68	.68	.68	.68	.68	.69	.69	.70	.71	.72	.74	.76	.77	.79	.81	.82
	*030	*009	989	971	953	938	923	912	905	900	898	899	902	909	918	931	945	962	986	*007	-030	-054	*079	*105
1100	.78	.77	.75	.74	.73	.72	.71	.70	.70	.70	.70	.71	.70	.71	.72	.73	.74	.75	.76	.77	.79	.81	.82	.84
	*052	*031	*011	992	975	959	944	934	927	922	920	921	925	932	942	955	970	987	*010	*032	*055	*079	*103	*129
15	.79	.78	.77	.75	.74	.73	.72	.72	.71	.71	.71	.71	.71	.72	.73	.74	.75	.76	.77	.79	.80	.82	.84	.85
	*069	*048	*027	*008	991	976	961	951	944	939	938	939	944	951	961	974	989	.007	*030	*052	*074	*098	*123	*147
30	.80	.79	.78	.76	.75	.74	.73	.73	.72	.72	.72	.72	.72	.73	.74	.75	.76	.77	.79	.80	.82	.83	.85	.86
	*081	*059	*039	*020	*002	987	972	963	956	952	951	953	958	965	976	989	*004	*021	*045	*066	*089	*112	*136	*161
45	.81	.79	.78	.77	.76	.75	.74	.73	.73	.72	.72	.73	.73	.74	.74	.75	.76	.78	.79	.81	.82	.84	.85	.87
	*088	*068	*045	*026	*009	994	979	970	963	960	959	961	966	974	985	998	*014	*031	*055	*076	*098	*121	*145	*169

MAY-AUG 20 5 TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.) *** SIGNIFIES COS Z ** ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					DATE					AUG				
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10
1200 .81 .80 .78 .77 .76 .75 *089* .067 .046 .027 .010 995	.74 .73 .73 .73 .73 .73 981 972 966 963 962 965	.73 .74 .75 .76 .77 .78 970 978 989 .003 .018 .036	.80 .81 .83 .84 .86 .87 *059* .080 .102 .125 .149 *172																	
15 .81 .79 .78 .77 .75 .75 *085* .063 .042 .023 .007 992	.74 .73 .73 .73 .73 .73 978 969 963 960 960 963	.73 .74 .75 .76 .77 .78 969 978 989 .002 .018 .036	.80 .81 .83 .84 .86 .87 *059* .080 .101 .124 .147 *170																	
30 .80 .79 .77 .76 .75 .74 *076* .054 .033 .015 998 984	.73 .72 .72 .72 .72 .72 970 962 956 954 954 957	.73 .73 .74 .75 .76 .78 963 972 983 997 .013 .030	.79 .81 .82 .84 .85 .86 *053* .074 .035 .117 *140 *162																	
45 .79 .77 .76 .75 .74 .73 *062* .040 .019 .001 984 970	.72 .72 .71 .71 .71 .71 957 949 944 942 942 946	.72 .73 .73 .74 .76 .77 952 961 973 987 .002 .020	.78 .80 .81 .83 .84 .85 *043* .063 .054 .105 *127 *149																	
1300 .78 .76 .75 .74 .72 .72 *043* .021 .000 982 966 952	.71 .70 .70 .70 .70 .70 939 932 927 925 926 930	.71 .71 .72 .73 .74 .76 937 946 957 971 987 .004	.77 .79 .80 .81 .83 .84 *027* .047 .057 .088 *110 *130																	
15 .76 .74 .73 .72 .71 .70 *018* .997 .976 958 943 929	.69 .69 .68 .68 .68 .69 917 910 905 904 905 909	.69 .70 .71 .72 .73 .74 916 926 937 951 967 984	.76 .77 .78 .80 .81 .82 *006* .026 .046 .066 *087 *107																	
30 .74 .72 .71 .70 .69 .68 989 968 948 930 914 902	.67 .67 .66 .66 .66 .67 890 883 879 878 880 884	.67 .68 .69 .70 .71 .72 891 901 912 926 942 959	.74 .75 .75 .78 .79 .80 981 *003 .019 .039 *059 *079																	
45 .71 .70 .68 .67 .66 .65 955 934 914 897 882 869	.65 .64 .64 .64 .64 .65 856 852 848 847 850 854	.65 .66 .67 .68 .69 .70 862 871 883 897 912 929	.71 .73 .74 .75 .77 .78 950 951 .988 .007 *026 *045																	
1400 .68 .67 .65 .64 .63 .63 917 896 876 859 845 833	.62 .62 .61 .61 .62 .62 822 816 813 813 815 820	.63 .63 .64 .65 .66 .67 827 837 849 863 878 894	.69 .70 .71 .73 .74 .75 915 933 952 970 989 *007																	
15 .65 .64 .62 .61 .60 .59 874 853 834 817 803 792	.59 .58 .58 .58 .59 .59 782 776 773 773 776 781	.60 .60 .61 .62 .63 .64 789 799 .811 824 833 855	.66 .67 .68 .69 .71 .72 876 893 .911 929 947 964																	
30 .61 .60 .59 .58 .57 .56 826 806 787 771 758 747	.55 .55 .55 .55 .55 .56 737 732 730 730 733 739	.56 .57 .58 .59 .60 .61 747 756 768 782 796 812	.63 .64 .65 .66 .67 .69 832 849 .951 883 900 917																	
45 .58 .56 .55 .54 .53 .52 775 755 737 721 708 698	.52 .52 .51 .52 .52 .52 689 684 682 683 686 692	.53 .54 .55 .55 .57 .58 700 710 722 735 749 765	.59 .60 .61 .62 .63 .64 784 800 817 833 850 865																	

MAY-AUG 20 S TABLE 8-1 SOLAR PARAMETERS CDS Z X0 (W/m²)

*** SIGNIFIES COS Z = 1
ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					DATE					AUG						
	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	
1500	.54	.52	.51	.50	.49	.48	.48	.48	.48	.49	.49	.50	.51	.52	.53	.54	.55	.56	.57	.58	.59	
720	700	693	667	655	645	637	633	631	632	636	642	650	660	671	684	698	713	732	743	764	779	795
15	.49	.48	.47	.46	.45	.44	.44	.44	.44	.44	.44	.45	.46	.47	.48	.49	.50	.51	.52	.53	.54	.55
661	642	625	610	598	589	581	577	577	578	582	588	596	606	617	630	644	658	676	692	707	722	736
30	.45	.43	.42	.41	.40	.40	.39	.39	.39	.40	.40	.41	.41	.42	.43	.44	.45	.46	.47	.48	.49	.50
599	580	564	550	538	529	522	519	519	520	525	531	539	549	560	573	586	600	617	632	646	661	674
45	.40	.38	.37	.36	.36	.35	.35	.35	.35	.36	.36	.36	.37	.38	.39	.40	.41	.42	.43	.44	.45	.46
533	515	499	486	475	467	461	458	458	460	454	471	479	489	500	512	525	538	555	563	583	596	609
1600	.35	.33	.32	.31	.31	.30	.30	.30	.30	.30	.31	.31	.32	.33	.34	.35	.36	.37	.38	.39	.40	.41
465	448	432	420	409	402	396	394	394	397	401	408	416	426	436	448	461	474	490	503	516	529	541
15	.29	.28	.27	.26	.26	.25	.25	.25	.25	.25	.26	.27	.27	.28	.29	.30	.31	.32	.33	.33	.34	.36
394	377	363	351	341	334	329	327	328	331	336	342	350	360	371	382	394	407	422	434	447	458	480
30	.24	.23	.22	.21	.20	.20	.20	.20	.20	.20	.21	.21	.22	.23	.24	.25	.25	.26	.27	.28	.29	.30
321	305	291	280	271	265	260	259	260	263	268	275	283	292	302	314	325	337	352	363	375	386	406
45	.18	.17	.16	.16	.15	.15	.14	.14	.15	.15	.16	.16	.17	.18	.18	.19	.20	.21	.22	.23	.24	.25
246	231	218	207	199	193	189	188	190	193	198	205	213	222	232	243	254	266	279	290	301	311	330
1700	.13	.12	.11	.10	.09	.09	.09	.09	.09	.10	.10	.11	.11	.12	.13	.14	.15	.15	.16	.17	.18	.19
170	155	143	133	125	120	117	116	118	122	127	134	142	151	160	171	181	192	205	215	225	235	252
15	.07	.06	.05	.04	.04	.03	.03	.03	.03	.04	.05	.05	.06	.07	.07	.08	.09	.10	.10	.11	.12	.13
092	078	066	057	050	046	043	043	045	049	054	061	069	078	087	097	107	117	129	139	148	157	172
30	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.02	.03	.03	.04	.04	.05	.05	.06	.07
014	000	000	000	000	000	000	000	000	000	000	000	000	004	013	022	032	041	053	061	070	078	085
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	005	

MAY-AUG 20 S TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.)

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

TABLE B-1 SOLAR PARAMETERS $\cos Z$
 $x_0 (W/\lambda * 2.)$

... SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

MST	SEP					OCT					NOV					DEC							
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30	
0800	.43	.45	.47	.49	.50	.52	.54	.55	.56	.58	.59	.60	.60	.60	.60	.60	.60	.60	.60	.60	.59	.59	
577	605	632	660	686	712	736	758	778	795	810	823	834	841	844	846	845	842	837	833	822	812	802	791
15	.48	.50	.52	.54	.55	.57	.59	.60	.61	.62	.63	.64	.65	.65	.65	.65	.65	.65	.65	.65	.64	.64	
647	674	702	729	756	781	805	826	846	863	878	890	901	907	911	912	911	908	903	897	883	880	870	860
30	.53	.55	.57	.59	.60	.62	.64	.65	.66	.67	.68	.69	.69	.69	.69	.70	.70	.69	.69	.69	.69	.69	
714	741	769	796	822	847	870	892	911	928	942	954	965	971	974	975	974	971	966	960	953	944	935	925
45	.58	.60	.61	.63	.65	.67	.68	.69	.71	.72	.72	.73	.74	.74	.74	.74	.73	.73	.72	.72	.71	.70	.70
777	804	832	859	885	909	932	953	972	989	993	014	*025	*030	*034	*035	*034	*031	*026	*021	*013	*005	997	987
0900	.62	.64	.66	.68	.69	.71	.72	.74	.75	.76	.76	.77	*78	*78	*78	*78	*77	*77	*76	*76	*75	*75	*74
637	664	691	918	944	968	991	011	*030	*046	*060	*071	*081	*086	*090	*091	*090	*087	*083	*077	*071	*063	*055	*046
15	.66	.68	.70	.72	.73	.75	.76	.78	.79	.80	.80	.81	*81	*82	*82	*81	*81	*81	*80	*80	*79	*78	*78
893	920	947	973	998	022	*045	*065	*083	*099	*112	*123	*133	*138	*142	*143	*142	*139	*135	*133	*124	*117	*110	*102
30	.70	.72	.74	.75	.77	.79	.80	.81	.82	.83	.84	.84	.85	.85	.85	.85	.84	.84	.84	.83	.83	.82	.81
944	971	998	024	049	073	*095	*115	*132	*148	*161	*171	*181	*186	*189	*190	*190	*188	*184	*179	*174	*167	*160	*153
45	.74	.75	.77	.79	.80	.82	.83	.84	.85	.86	.87	.88	.88	.88	.88	.87	.88	.87	.87	.86	.85	.85	
992	*019	*045	*071	*095	*119	*140	*159	*177	*192	*204	*215	*224	*229	*232	*234	*233	*231	*228	*224	*219	*213	*207	*200
1000	.77	.79	.80	.82	.83	.85	.86	.87	.88	.89	.90	.91	.91	.91	.91	.91	.90	.90	.89	.89	.88	.88	
	*035	*061	*088	*113	*137	*160	*181	*200	*216	*231	*243	*253	*263	*268	*271	*272	*271	*268	*264	*260	*255	*249	*243
15	.80	.81	.83	.85	.86	.88	.89	.90	.91	.92	.92	.93	.93	.93	.93	.93	.93	.92	.92	.92	.91	.91	
	*073	*099	*125	*150	*174	*196	*216	*235	*251	*265	*287	*296	*302	*305	*306	*305	*305	*303	*300	*296	*291	*287	*282
30	.82	.84	.85	.87	.88	.90	.91	.92	.93	.94	.94	.95	.95	.95	.95	.95	.95	.95	.94	.94	.93	.93	
	*107	*133	*158	*182	*205	*227	*247	*265	*281	*295	*307	*316	*325	*330	*334	*335	*336	*335	*333	*331	*327	*324	*320
45	.84	.86	.87	.89	.90	.92	.93	.94	.95	.95	.96	.97	.97	.97	.97	.97	.97	.96	.96	.95	.95	.95	
	*135	*161	*185	*209	*232	*253	*272	*290	*305	*319	*330	*340	*349	*354	*357	*359	*360	*360	*359	*357	*354	*351	*348

SEP-DEC 20 S TABLE B-1 SOLAR PARAMETERS

COS Z
X0 (W/M**2.)*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					NOV					DEC					
	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20
1100	.86	.88	.89	.91	.92	.93	.94	.95	.96	.97	.98	.93	.98	.98	.98	.98	.98	.98	.97	.97	.97
	*159*184*208*231*253*274						*292*310*325*338*349*358					*367*372*376*378*379*380						*379*378*376*374*371*368			
15	.87	.89	.90	.92	.93	.94	.95	.96	.97	.98	.99	.90	.99	.99	.99	.99	.99	.99	.99	.98	.98
	*177*201*225*248*269*289						*307*324*338*351*362*371					*380*385*389*392*394*394						*394*393*392*391*389*387			
30	.88	.90	.91	.93	.94	.95	.96	.97	.98	.98	.99	.99	***	***	***	***	***	***	.99	.99	.99
	*190*214*237*259*280*299						*317*333*347*359*370*379					*383*393*397*400*402*404						*404*404*404*403*402*401			
45	.89	.90	.92	.93	.94	.95	.96	.97	.98	.99	.99	.99	***	***	***	***	***	***	*409*410*410*410*410		
	*198*221*243*264*285*303						*320*336*350*362*372*391					*390*396*400*403*406*408									
1200	.89	.90	.92	.93	.94	.95	.96	.97	.98	.98	.99	.99	.99	.99	.99	.99	.99	.99	*408*410*411*412*413*413		
	*200*222*244*265*284*302						*319*334*347*359*369*378					*387*393*397*401*404*407									
15	.89	.90	.91	.93	.94	.95	.96	.96	.97	.98	.98	.99	.93	.99	.99	.99	.99	.99	*403*405*407*409*410*412		
	*197*218*239*259*278*296						*312*326*339*351*361*369					*378*384*389*394*397*400									
30	.88	.89	.91	.92	.93	.94	.95	.96	.96	.97	.98	.98	.98	.98	.98	.99	.99	.99	*392*395*397*400*402*405		
	*188*209*229*249*267*284						*299*313*326*337*347*355					*364*371*376*381*385*388									
45	.87	.88	.90	.91	.92	.93	.93	.94	.95	.96	.96	.97	.97	.97	.97	.97	.97	.98	.98	.98	.98
	*174*195*214*233*250*266						*281*294*307*318*327*336					*345*352*357*363*367*372						*376*379*383*386*389*392			
1300	.86	.87	.88	.89	.90	.91	.92	.92	.93	.94	.94	.94	.95	.95	.95	.96	.96	.96	.96	.96	.96
	*155*175*193*211*228*243						*250*271*282*293*303*311					*321*327*334*339*345*350						*354*359*353*367*371*375			
15	.84	.85	.86	.87	.88	.89	.90	.90	.91	.91	.92	.92	.93	.93	.93	.94	.94	.94	.94	.95	.96
	*131*150*168*185*201*215						*229*242*253*263*273*282					*291*298*305*311*317*323						*328*333*332*343*348*353			
30	.82	.83	.84	.85	.86	.87	.87	.88	.88	.89	.89	.90	**	**	**	**	**	.91	.91	.92	.92
	*101*119*137*153*168*182						*195*207*218*229*238*247					*257*264*271*278*284*291						*297*303*309*315*320*325			
45	.79	.80	.81	.82	.83	.84	.84	.85	.86	.86	.87	.87	.88	.88	.88	.89	.89	.89	.90	.91	.91
	*067*084*101*116*131*144						*157*168*179*189*198*207					*217*225*233*240*247*254						*261*263*274*281*287*293			

SEP-DEC 20 S

TABLE B-1 SOLAR PARAMETERS

COS Z
X0 (W/M*2.)

*** SIGNIFIES COS Z = 1.
ACD 1000 TO VALUES PRECEDED BY .

MST	DATE										DATE											
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	
1400	.76	.77	.78	.79	.80	.81	.81	.82	.83	.83	.84	.84	.85	.85	.86	.86	.87	.87	.88	.88	.89	
	*028*044*060*075*088*101						*113*124*135*145*154*163				*173*181*189*197*205*213						*220*223*235*243*250*256					
15	.73	.74	.75	.76	.76	.77	.76	.78	.79	.80	.81	.81	.82	.82	.83	.83	.84	.84	.85	.85	.86	
	984	999*014*028*041*054					*065*076*086*096*105*114				*125*133*142*150*159*167					*175*184*192*200*207*214						
30	.69	.70	.71	.72	.73	.73	.74	.74	.75	.76	.77	.77	.78	.78	.79	.79	.80	.80	.81	.82	.83	
	935	950	964	978	990	1002	*013*023*033*043*052*061				*072*081*090*099*108*117					*126*135*144*153*161*169						
45	.66	.66	.67	.68	.69	.69	.70	.70	.71	.72	.72	.73	.73	.74	.74	.75	.76	.76	.77	.78	.79	
	883	897	910	923	934	945	956	966	976	985	995*004	*015*024*034*044*053*063				*073*083*092*101*110*118						
1500	.61	.62	.63	.64	.64	.65	.65	.66	.66	.67	.68	.68	.69	.70	.70	.71	.71	.72	.73	.74	.75	
	826	840	852	864	875	885	895	905	915	924	933	943	954	964	974	985	995*005	*016*025*03*046*056*064				
15	.57	.58	.58	.59	.60	.60	.61	.61	.62	.62	.63	.64	.64	.65	.66	.67	.68	.68	.69	.70	.71	
	766	778	790	801	811	821	831	840	850	859	863	878	890	900	911	922	933	944	955	966	977	
30	.52	.53	.53	.54	.55	.55	.56	.56	.57	.57	.58	.58	.59	.60	.61	.62	.62	.63	.64	.65	.67	
	702	714	725	735	745	754	763	772	782	791	800	810	823	833	845	856	868	879	891	903	914	
45	.47	.48	.48	.49	.50	.50	.51	.51	.52	.52	.53	.53	.54	.55	.55	.56	.57	.58	.59	.60	.62	
	635	646	656	666	675	684	693	701	710	720	729	740	752	764	775	787	799	812	824	837	848	860
1600	.42	.43	.43	.44	.44	.45	.45	.46	.46	.47	.48	.49	.49	.50	.51	.52	.53	.54	.54	.55	.56	
	565	575	584	593	602	610	619	628	636	646	656	666	679	691	703	716	728	741	754	767	780	
15	.37	.37	.38	.38	.39	.39	.40	.40	.41	.41	.42	.42	.43	.44	.45	.46	.47	.48	.48	.49	.50	
	492	501	510	518	527	535	543	551	560	569	579	590	604	616	628	642	655	669	682	695	709	
30	.31	.32	.32	.33	.33	.33	.34	.34	.35	.36	.36	.37	.38	.39	.39	.40	.41	.42	.43	.44	.45	
	417	425	434	441	449	457	465	473	482	491	501	512	526	539	552	566	580	594	608	622	635	648
45	.25	.26	.26	.27	.27	.28	.28	.29	.29	.30	.31	.32	.33	.34	.35	.36	.37	.38	.39	.40	.41	
	340	348	355	362	369	377	384	393	401	411	421	432	447	460	474	488	502	517	532	546	560	573

SEP-DEC 20 S

TABLE 8-1 SOLAR PARAMETERS

COS Z

X0 (W/M**2.)

*** SIGNIFICANT COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	SEP										OCT										NOV										DEC									
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30																
1700	.19	.20	.20	.21	.21	.22	.22	.23	.23	.24	.25	.25	.26	.27	.28	.29	.30	.31	.32	.33	.34	.35	.36	.37																
	261	268	275	282	288	295	303	311	320	329	340	351	365	380	394	409	424	439	454	469	483	496	509	520																
15	.13	.14	.14	.15	.15	.16	.16	.17	.17	.18	.19	.19	.20	.21	.22	.23	.25	.26	.27	.28	.29	.30	.30	.31																
	181	187	193	200	206	213	220	228	237	247	257	269	285	299	313	329	344	360	375	390	405	419	431	442																
30	.07	.08	.08	.09	.09	.10	.10	.11	.11	.12	.13	.13	.15	.16	.17	.18	.19	.20	.21	.22	.23	.24	.25	.26																
	099	105	111	117	123	129	136	144	153	163	174	186	202	217	232	248	264	280	296	311	325	340	352	363																
45	.01	.02	.02	.03	.03	.03	.04	.04	.05	.06	.07	.07	.09	.10	.11	.12	.13	.14	.15	.15	.17	.18	.19	.20																
	017	023	028	033	039	045	052	060	069	079	091	103	120	135	150	166	183	199	216	231	246	260	273	284																
1800	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09	.10	.11	.12	.13	.14																
	000	000	000	000	000	000	000	000	000	000	007	020	037	052	068	085	102	119	135	151	155	180	193	204																
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.03	.04	.05	.06	.07	.08	.09																	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	004	021	038	055	071	087	101	113	124																
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.02	.02	.03																	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	037	021	034	044																	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00																	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000																	

SEP-DEC 20 S TABLE B-1 SOLAR PARAMETERS $\cos Z_{X_0}$ (W/M**2.) *** SIGNIFIES $\cos Z = 1$. ADD 1000 TO VALUES PRECEDED BY *

MST	1	5	10	15	20	25	30	FEB						MAR						APR					
								5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30	
0400	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
45	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
022	009	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
0500	.06	.05	.04	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
084	071	052	031	007	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
15	.10	.10	.08	.07	.05	.03	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
148	134	115	094	071	047	021	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
295	.30	.15	.14	.13	.11	.10	.08	.06	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
212	199	180	159	136	112	087	055	028	002	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
45	.20	.19	.17	.16	.14	.13	.11	.09	.07	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
277	264	245	225	202	178	153	122	036	069	043	016	000	000	000	000	000	000	000	000	000	000	000	000	000	
0600	.24	.23	.22	.21	.19	.17	.16	.14	.12	.10	.08	.06	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
342	329	311	290	268	245	220	190	164	137	111	065	044	019	000	000	000	000	000	000	000	000	000	000	000	
15	.29	.28	.27	.25	.24	.22	.20	.18	.17	.15	.13	.11	.03	.06	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	
407	394	376	356	335	312	288	257	232	206	180	154	114	089	064	041	017	000	000	000	000	000	000	000	000	
30	.33	.33	.31	.30	.28	.27	.25	.23	.21	.20	.18	.16	.13	.11	.10	.08	.06	.05	.03	.01	.00	.00	.00	.00	
472	460	442	422	401	379	355	325	300	274	249	223	183	156	134	110	086	063	035	013	000	000	000	000	000	
45	.38	.37	.36	.35	.33	.32	.30	.28	.26	.24	.23	.21	.18	.16	.15	.13	.11	.10	.08	.05	.04	.03	.01	.00	
537	525	507	488	467	445	422	393	368	343	317	292	252	227	203	178	154	131	103	083	057	034	012	000	000	

JAN-APR 40 S TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.) PREVIOUS PAGE IS BLANK C

*** SIGNIFIES COS Z = 1.

ADD 1000 TO VALUES PRECEDED BY *

MST	JAN										FEB										DATE										APR									
	1	5	10	15	20	25	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30				
0700	.42	.42	.40	.39	.38	.36	.35	.33	.31	.29	.28	.26	.23	.21	.20	.18	.16	.14	.12	.11	.09	.07	.06	.04	.169	.145	.122	.099	.077	.054										
601	589	572	553	533	511	488	459	435	410	385	360	320	295	271	246	222	198	235	211	187	163	140	117																	
15	.47	.46	.45	.44	.42	.41	.39	.37	.36	.34	.32	.31	.28	.26	.24	.23	.21	.19	.17	.15	.14	.12	.10	.09																
30	.51	.50	.49	.48	.47	.45	.44	.42	.40	.39	.37	.35	.33	.31	.29	.27	.26	.24	.22	.20	.18	.17	.15	.13																
45	.55	.55	.54	.52	.51	.50	.48	.46	.45	.43	.42	.40	.37	.36	.34	.32	.30	.29	.26	.25	.23	.21	.19	.18																
785	774	758	741	722	702	640	653	630	606	582	558	518	493	468	443	417	392	362	336	311	286	261	237																	
0800	.60	.59	.58	.57	.55	.54	.53	.51	.49	.48	.46	.44	.42	.40	.38	.37	.35	.33	.31	.29	.27	.25	.24	.22																
843	832	817	800	782	762	741	715	692	669	645	620	581	556	530	505	479	453	422	396	370	345	319	295																	
15	.64	.63	.62	.61	.59	.58	.57	.55	.54	.52	.50	.49	.46	.44	.43	.41	.39	.37	.35	.33	.31	.30	.28	.26																
30	.67	.67	.66	.65	.63	.62	.61	.632	.610	.587	.587	.59	.58	.56	.55	.53	.50	.49	.47	.45	.43	.42	.39	.37	.35	.34	.32	.30												
45	.71	.70	.69	.68	.67	.66	.65	.63	.62	.60	.59	.57	.54	.53	.51	.49	.47	.45	.43	.41	.39	.37	.35	.34																
894	981	966	949	931	912	887	865	843	820	796	756	730	704	677	650	623	590	562	534	507	479	453																		
0900	.74	.74	.73	.72	.71	.70	.68	.67	.65	.64	.62	.61	.58	.56	.55	.53	.51	.49	.47	.45	.43	.41	.39	.37																
	*052*043*030*015	999	982	963	939	918	896	873	849	809	783	757	730	702	674	640	612	583	555	527	500																			
15	.78	.77	.76	.75	.74	.73	.72	.70	.69	.67	.66	.64	.62	.60	.58	.56	.55	.53	.50	.48	.46	.44	.42	.40																
30	.81	.80	.79	.78	.77	.76	.75	.74	.72	.71	.69	.68	.65	.63	.62	.60	.58	.56	.54	.51	.49	.47	.45	.43																
45	.83	.83	.82	.81	.80	.79	.78	.77	.75	.74	.72	.71	.68	.66	.65	.63	.61	.59	.56	.54	.52	.50	.48	.46																
	*139*131*120*106*092*075*058																																							
296	*097*099*076*063*047*030*012																																							
JAN-APR	40 S	TABLE B-1	SOLAR PARAMETERS	COS Z	XO (W/M**2.)																																			

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY +
XO (W/M**2.)

MST	JAN										FEB										MAR										APR									
	1	5	10	15	20	25	30	5	10	15	20	25	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30							
1000 .86 .85 .84 .83 .82 .81 *213*206*196*184*170*155*138	.79 .78 .77 .75 .74 *116*097*075*053*029	.71 .69 .68 .66 .64 9813 962 934 905 876 846	.62 ·59 ·57 ·55 ·53 ·51 ·49 809 773 747 716 686 656																																					
15 .88 .89 .87 .86 .85 .83 *245*238*229*217*204*190*174	.82 .81 .79 .76 .76 *152*132*111*083*065	.74 .72 .70 .68 .66 *024 997 969 940 910 879	.64 ·62 ·59 ·57 ·55 ·53 ·51 ·62 ·53 ·57 ·55 ·53 ·51 842 813 779 747 716 686																																					
30 .90 .89 .88 .87 .86 .85 *273*267*258*247*235*221*205	.84 .83 .82 .80 .79 *184*164*143*121*097	.76 .74 .72 .70 .68 .66 *056·029·000·971·940·909	.64 ·62 ·59 ·57 ·55 ·53 871 833 806 774 743 713																																					
45 .92 .91 .90 .89 .88 .87 *297*291*283*273*261*247*232	.86 .85 .84 .82 .81 *2111*192*172*149*125	.78 .76 .74 .72 .70 .68 *084·056·027·997·966·934	.66 ·63 ·61 ·59 ·57 ·55 896 863 830 798 766 735																																					
1100 .93 .93 .92 .92 .91 .90 .89 *317*312*304*294*283*270*255	.88 .87 .85 .84 .82 *235*216*196*173*149	.80 .78 .76 .74 .72 .70 *103·080·050·020·988·956	.67 ·65 ·63 ·60 ·58 ·56 916 883 850 817 784 753																																					
15 .94 .94 .93 .93 .92 .91 .90 *332*328*321*312*301*289*274	.89 .88 .87 .85 .84 *254*236*215*193*169	.81 .79 .77 .75 .73 .71 *127·098·069·038·006·973	.68 ·65 ·64 ·61 ·59 ·57 933 819 865 832 799 767																																					
30 .95 .95 .94 .94 .93 .92 .91 *344*340*334*325*315*303*289	.90 .89 .88 .86 .85 *269*251*231*208*184	.82 .80 .78 .76 .74 .72 *142·113·083·051·019·985	.69 ·67 ·64 ·62 ·60 ·58 945 913 876 842 809 777																																					
45 .95 .95 .94 .94 .93 .92 *351*348*342*334*325*313*299	.91 .90 .89 .87 .86 *280*262*242*219*195	.83 .81 .79 .77 .75 .72 *152·123·092·061·028·994	.70 ·67 ·65 ·63 ·60 ·58 952 917 883 848 815 783																																					
1200 .96 .96 .95 .95 .94 .93 .93 *354*352*346*339*330*319*305	.91 .90 .89 .88 .86 *286*268*248*226*201	.82 .81 .79 .77 .75 .73 *153·129·058·065·032·997	.70 ·67 ·65 ·63 ·60 ·58 955 923 885 850 816 784																																					
15 .96 .95 .95 .95 .94 .93 *353*351*346*340*331*320*307	.92 .90 .89 .88 .86 *288*270*250*228*203	.83 .81 .79 .77 .75 .73 *153·130·058·065·031·996	.70 ·67 ·65 ·63 ·60 ·58 954 913 883 848 814 781																																					
30 .95 .95 .94 .94 .93 .93 *348*346*342*336*327*317*304	.91 .90 .89 .88 .86 *286*268*248*225*200	.83 .81 .79 .77 .75 .72 *156·126·094·061·027·991	.69 ·67 ·64 ·62 ·60 ·57 948 912 876 841 806 774																																					
45 .95 .94 .94 .94 .93 .92 *338*337*333*327*320*309*297	.91 .90 .88 .87 .85 *279*261*241*218*193	.83 .81 .78 .76 .74 .72 *148·118·086·052·017·981	.69 ·65 ·64 ·61 ·59 ·57 938 901 865 830 795 762																																					

... SIGNIFIES COS Z =1.
ADD 1000 TO VALUES PRECEDED BY *

JAN-APR 40 S TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/m**2.)

NST	1	5	10	15	20	25	30	FEB	5	10	15	20	25	DATE	MAR	5	10	15	20	25	30	APR									
															DATE	MAR	5	10	15	20	25	30	APR								
1300	.94	.93	.93	.93	.92	.92	.91	*267*250*229*207*181	.90	.89	.88	.86	.85	*136*105*073*039*003	967	.82	.60	.78	.75	.73	.70	.68	.63	.60	.58	.55					
	*324*323*320*315*308*296*285															923	883	850	814	780	746										
15	.92	.92	.92	.92	.91	.91	.90	*252*234*214*191*165	.89	.88	.87	.85	.83	*120*088*055*021	985	949	.80	.78	.76	.74	.72	.69	.66	.64	.51	.59	.56	.54			
	*306*303*298*291*282*270															904	867	830	794	760	727										
30	.91	.91	.91	.90	.90	.89	.89	*232*214*193*179*145	.88	.86	.85	.84	.82	*09*067*034	999	963	926	.79	.77	.75	.72	.70	.67	.64	.62	.59	.57	.54	.52		
	*284*282*278*271*261*250															881	843	807	771	736	703										
45	.89	.89	.89	.88	.88	.87	.87	*208*190*169*146*120	.86	.85	.83	.82	.80	*073*041*068	972	936	899	.77	.75	.73	.70	.68	.66	.62	.60	.57	.55	.52	.50		
	*258*257*253*246*237*225															854	816	779	743	708	675										
1400	.87	.87	.87	.86	.86	.86	.85	*228*229*227*224*218*209*197	.84	.83	.81	.80	.78	*179*161*141*117*091	911	.75	.73	.71	.68	.66	.63	.60	.53	.55	.52	.50	.48				
																822	784	747	711	676	643										
15	.84	.84	.84	.84	.84	.83	.83	*194*195*195*191*185*176*165	.82	.80	.79	.77	.76	*147*129*108*094*058	973	.73	.70	.68	.66	.63	.61	.58	.55	.52	.50	.47	.45				
	*157*158*158*155*149*140*129															8010	978	943	908	870	833										
30	.82	.82	.82	.81	.81	.80	.79	*111*093*072*048*021	.79	.78	.76	.75	.73	.70	.68	.65	.63	.60	.58	.55	.52	.49	.47	.45	.42						
	*117*118*118*115*109*101*089															973	940	905	869	832	794										
45	.79	.79	.79	.79	.78	.77	.77	*76*75	.74	.72	.70	.67	.65	.62	.60	.57	.55	.52	.49	.46	.44	.41	.39								
	*026*028*028*025*020*011*000															932	899	864	827	790	751										
1500	.76	.76	.76	.76	.75	.75	.74	*073*074*074*072*066*058*046	.73	.72	.70	.69	.67	*028*010	988	964	936	.64	.62	.59	.57	.54	.51	.48	.45	.43	.40	.38	.36		
																887	854	818	782	744	705										
15	.72	.73	.73	.73	.72	.72	.71	*026*028*028*025*020*011*000	.70	.69	.67	.65	.64	.981	963	941	916	889	839	805	770	733	695	656	.45	.42	.39	.37	.34	.32	
																788	754	718	681	643	604										
30	.69	.69	.69	.69	.68	.68	.67	*976	978	978	976	970	962	950	.66	.65	.64	.62	.60	.57	.54	.52	.49	.47	.44	.41	.33	.31	.28		
																558	520	483	447	414	382										
45	.65	.65	.65	.65	.65	.64	.64	*923	926	926	924	918	910	898	.62	.61	.60	.58	.56	.53	.50	.48	.45	.43	.40	.37	.34	.32	.29	.27	.24
																734	700	663	626	588	549										

JAN-APR

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S

TABLE

B-1

COS^Z
X₀ (W/M**2.)*** SIGNIFIES COS^Z
ADD 1000 TO VALUES PRECEDED BY *

NST	DATE										APR									
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1600	.61	.62	.62	.61	.61	.61	.60	.59	.57	.56	.54	.52	.49	.46	.44	.41	.39	.36	.33	.33
868	871	871	869	864	855	843	824	805	782	756	728	677	642	606	569	530	492	445	403	371
15	.57	.58	.58	.57	.57	.57	.56	.54	.53	.52	.50	.48	.44	.42	.40	.37	.34	.31	.28	.26
811	814	814	812	806	798	785	766	747	724	698	659	618	583	546	509	470	432	386	343	312
30	.53	.53	.53	.53	.53	.53	.51	.50	.49	.47	.46	.44	.40	.38	.35	.32	.30	.27	.24	.21
752	755	755	753	753	747	738	726	706	686	663	637	608	556	521	484	447	408	370	324	285
45	.49	.49	.49	.49	.49	.49	.47	.46	.44	.43	.41	.39	.35	.33	.30	.28	.25	.22	.19	.15
691	694	695	692	686	677	664	644	624	601	574	545	493	457	421	383	344	306	260	223	188
1700	.44	.45	.45	.45	.44	.44	.43	.41	.40	.38	.36	.34	.31	.28	.26	.23	.20	.18	.14	.12
629	632	632	630	624	614	601	581	560	536	510	480	427	392	355	317	279	241	195	153	123
15	.40	.40	.40	.40	.40	.40	.39	.38	.37	.35	.34	.32	.30	.26	.23	.21	.18	.15	.09	.07
566	568	569	566	566	560	550	536	516	495	471	444	414	361	325	288	250	212	174	129	93
30	.35	.36	.36	.35	.35	.34	.33	.32	.31	.29	.27	.25	.21	.19	.16	.13	.11	.08	.05	.02
502	504	504	501	495	485	471	450	428	404	376	346	293	257	220	183	144	106	662	626	600
45	.31	.31	.31	.30	.30	.29	.27	.26	.24	.22	.20	.16	.14	.11	.08	.06	.03	.00	.00	.00
437	439	439	436	429	418	404	383	361	336	309	278	221	189	152	114	76	38	000	000	000
1800	.26	.26	.26	.26	.26	.26	.24	.22	.21	.19	.17	.15	.11	.09	.06	.03	.01	.00	.00	.00
371	374	374	370	363	352	337	315	293	268	240	209	155	120	883	645	607	600	600	600	600
15	.22	.22	.22	.22	.21	.20	.19	.18	.16	.14	.12	.10	.06	.04	.01	.00	.00	.00	.00	.00
306	308	308	304	296	285	270	248	225	200	171	140	886	853	813	600	600	600	600	600	600
30	.17	.17	.17	.17	.16	.15	.14	.13	.11	.09	.07	.05	.01	.00	.00	.00	.00	.00	.00	.00
241	243	242	238	230	218	203	180	157	131	102	571	617	600	600	600	600	600	600	600	600
45	.13	.13	.13	.12	.12	.11	.10	.08	.06	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00
177	178	177	172	164	152	136	112	89	63	34	02	000	000	000	000	000	000	000	000	000

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JAN-APR 40 S TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.)

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

NST	1	5	10	15	20	25	30	DATE							
								JAN	FEB	MAR	APR	5	10	15	
1900	.08	.08	.08	.08	.07	.06	.05	.03	.02	.00	.00	.00	.00	.00	.00
	113	114	113	107	099	086	070	046	022	000	000	000	000	000	000
15	.04	.04	.04	.03	.02	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00
	050	051	049	044	034	021	004	000	000	000	000	000	000	000	000
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

JAN-APR 40 S TABLE B-1

SOLAR PARAMETERS COS Z
X0 (W/M**2.)*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					DATE					AUG								
	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.02	.04	
0700	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.04	.06	.09	
15	.07	.06	.04	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.03	.05	.07	.09	.11	.14
30	.12	.10	.08	.07	.06	.04	.03	.02	.02	.01	.01	.01	.01	.02	.03	.04	.05	.07	.09	.11	.13	.16	.18	
45	.16	.14	.13	.11	.10	.09	.07	.06	.05	.05	.05	.05	.05	.06	.07	.08	.10	.12	.14	.16	.18	.20	.23	
0800	.20	.18	.17	.15	.14	.13	.11	.10	.09	.09	.09	.09	.10	.11	.12	.14	.16	.18	.20	.22	.25	.27		
15	.24	.22	.21	.19	.18	.17	.15	.14	.13	.13	.13	.13	.14	.14	.15	.17	.18	.20	.22	.24	.26	.29	.31	
30	.28	.26	.25	.23	.22	.20	.19	.18	.17	.17	.17	.17	.17	.18	.19	.20	.22	.24	.25	.27	.30	.33	.35	
45	.32	.30	.28	.27	.25	.24	.23	.22	.21	.20	.20	.21	.21	.22	.23	.24	.26	.28	.30	.32	.34	.37	.39	
	270	247	225	204	185	168	151	139	129	123	119	118	121	127	136	149	165	184	211	237	265	297	330	365
	377	353	330	308	288	271	253	240	231	224	221	221	224	230	240	254	271	291	319	345	375	406	440	476
	325	301	279	257	238	221	203	191	181	175	171	171	174	180	189	202	219	238	266	292	321	353	386	422
	427	402	378	356	336	318	300	288	278	272	268	268	272	279	289	303	320	340	369	395	426	458	492	527

TABLE 9-1 SOLAR PARAMETERS CUS Z
 $\chi_0 (w/m^2 \cdot s)$

*** SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY *

NST	MAY					JUN					DATE					AUG									
	5	10	15	20	30	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30			
0900	.35	.33	.32	.30	.29	.27	.26	.25	.24	.24	.24	.25	.25	.26	.28	.29	.31	.33	.35	.38	.40	.43			
	473	448	424	402	381	363	345	332	323	316	313	314	317	325	335	349	367	388	417	441	474	506	540	576	
15	.38	.37	.35	.33	.32	.30	.29	.28	.28	.27	.27	.27	.28	.29	.30	.31	.33	.35	.37	.39	.41	.44	.46		
	517	491	467	444	423	405	386	374	354	358	355	355	360	368	379	393	411	432	461	481	519	551	586	622	
30	.41	.40	.38	.36	.35	.33	.32	.31	.30	.30	.30	.30	.30	.31	.32	.33	.34	.36	.38	.40	.42	.44	.47	.49	
	557	531	506	483	462	444	425	413	403	397	395	395	400	408	419	434	452	473	503	531	551	594	628	664	
45	.44	.42	.41	.39	.37	.36	.35	.34	.33	.33	.33	.33	.33	.34	.34	.35	.36	.37	.39	.41	.43	.45	.47	.50	.52
	594	567	542	519	498	479	460	446	439	433	431	432	436	444	456	471	490	512	542	570	600	633	667	703	
1000	.47	.45	.43	.41	.40	.38	.37	.36	.35	.35	.35	.36	.37	.38	.40	.41	.43	.45	.48	.50	.52	.55			
	628	600	575	551	530	511	493	480	471	465	463	465	469	478	490	506	524	546	577	605	635	668	703	738	
15	.49	.47	.45	.43	.42	.41	.39	.38	.38	.37	.37	.37	.38	.38	.39	.40	.42	.44	.46	.48	.50	.52	.55	.57	
	657	630	604	580	559	540	521	509	500	494	493	494	499	508	521	536	555	578	608	637	667	700	734	770	
30	.51	.49	.47	.45	.44	.42	.41	.40	.40	.39	.39	.39	.40	.40	.41	.43	.44	.46	.48	.50	.52	.54	.57	.59	
	683	655	629	605	584	565	546	534	525	520	518	520	526	535	547	564	583	605	636	664	695	728	762	797	
45	.52	.50	.49	.47	.45	.44	.43	.42	.41	.41	.41	.41	.41	.42	.43	.44	.46	.47	.50	.52	.54	.56	.59	.61	
	705	677	651	627	605	586	567	555	547	542	540	542	545	558	571	587	607	629	660	689	719	752	786	821	
1100	.54	.52	.50	.48	.47	.45	.44	.43	.43	.42	.42	.42	.43	.44	.45	.46	.47	.49	.51	.53	.55	.58	.60	.63	
	723	695	668	644	622	603	585	573	565	560	559	561	567	577	590	607	626	649	680	703	739	772	806	841	
15	.55	.53	.51	.49	.48	.46	.45	.44	.44	.43	.43	.44	.44	.45	.46	.47	.48	.50	.52	.54	.57	.59	.61	.64	
	737	708	681	657	636	617	598	587	579	574	573	576	582	592	606	622	642	665	696	725	755	788	821	856	
30	.56	.53	.52	.50	.48	.47	.46	.45	.44	.44	.44	.44	.45	.46	.47	.48	.49	.51	.53	.55	.57	.60	.62	.65	
	746	718	691	666	645	626	608	596	589	584	584	587	593	603	617	634	654	677	708	737	767	799	833	867	
45	.56	.54	.52	.50	.49	.47	.46	.45	.45	.45	.45	.45	.45	.46	.47	.48	.50	.52	.54	.56	.58	.60	.63	.65	
	752	723	696	672	650	632	614	602	595	591	590	593	600	611	625	642	662	685	716	745	775	807	840	874	

MAY-AUG 40 S TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.) * * * SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

NST	MAY					JUN					JUL					AUG					
	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	
1500	.34	.32	.30	.28	.27	.26	.25	.25	.24	.24	.25	.25	.26	.27	.28	.29	.31	.32	.34	.36	.38
	452	425	401	379	362	347	334	327	324	324	327	333	342	354	369	386	405	426	453	477	502
15	.30	.28	.26	.25	.24	.23	.22	.21	.21	.21	.21	.22	.23	.24	.25	.26	.27	.29	.31	.32	.34
	404	377	353	333	315	301	289	282	279	279	283	289	299	311	325	342	361	381	408	431	456
30	.26	.24	.23	.21	.20	.19	.18	.18	.18	.18	.18	.18	.19	.20	.21	.22	.24	.25	.27	.29	.30
	353	327	304	283	266	253	241	235	232	232	236	243	252	264	278	295	314	334	360	383	406
45	.22	.20	.19	.17	.16	.15	.14	.14	.14	.14	.14	.15	.15	.16	.17	.19	.20	.21	.23	.25	.27
	300	274	251	232	215	202	191	185	182	183	187	194	203	215	229	246	264	284	309	331	355
1600	.18	.16	.15	.13	.12	.11	.10	.10	.10	.10	.10	.11	.10	.12	.13	.15	.16	.17	.19	.21	.23
	244	219	197	177	162	149	138	133	131	132	135	142	152	164	178	194	212	231	256	279	300
15	.14	.12	.10	.09	.08	.07	.06	.06	.06	.06	.06	.07	.07	.08	.09	.11	.12	.13	.15	.17	.18
	187	162	140	121	106	094	084	079	077	078	082	089	098	110	124	140	157	176	200	222	244
30	.09	.08	.06	.05	.04	.03	.02	.02	.02	.02	.02	.03	.03	.04	.05	.06	.08	.09	.11	.12	.14
	127	103	082	064	049	037	027	023	021	023	027	034	043	055	068	084	101	119	143	164	185
45	.05	.03	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.02	.03	.05	.06	.08	.10
	66	642	622	604	586	568	550	532	514	500	482	464	446	428	410	392	374	356	338	320	302
1700	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.03	.05
	004	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	001	024	043	063
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.03
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	020	040
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

MAY-AUG 40 S

TABLE B-1 SOLAR PARAMETERS $COS^2 X_0$ (W/M**2.)

*** SIGNIFIES $COS^2 Z = 1$.
ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					NOV					DEC						
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30
0400	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
0500	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
0600	.00	.00	.00	.01	.03	.06	.09	.12	.14	.16	.18	.20	.22	.24	.25	.26	.27	.27	.27	.26	.25	
15	.00	.00	.03	.06	.08	.11	.14	.17	.19	.21	.23	.25	.27	.29	.30	.31	.32	.32	.31	.30	.29	
30	.02	.05	.08	.11	.13	.16	.19	.21	.24	.26	.28	.30	.32	.33	.34	.35	.36	.36	.35	.35	.34	
45	.07	.10	.13	.16	.18	.21	.24	.26	.29	.31	.33	.35	.37	.38	.39	.40	.40	.41	.40	.39	.38	
098	135	173	211	250	288	325	361	395	427	456	492	516	529	546	558	568	574	576	575	572	565	555

TABLE 8-1 SOLAR PARAMETERS $\cos Z_{X0}$ ($W/m^2 \cdot s$)

*** SIGNIFIES $\cos Z = 1$
ADD 1000 TO VALUES PRECEDED BY *

MST	DATE										DATE											
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	
0700	.12	.15	.18	.20	.23	.26	.29	.31	.33	.36	.38	.39	.41	.43	.44	.45	.45	.45	.45	.44	.44	
163	200	239	277	316	354	391	427	460	492	521	547	574	593	609	622	631	637	639	639	635	628	619
15	.17	.20	.22	.25	.28	.31	.33	.36	.38	.40	.42	.44	.46	.47	.48	.49	.50	.50	.50	.49	.49	.47
227	265	303	342	380	418	455	491	524	556	584	610	637	656	672	684	693	699	701	700	697	690	681
30	.22	.24	.27	.30	.33	.35	.38	.40	.43	.45	.47	.48	.50	.51	.52	.53	.54	.54	.54	.53	.52	.52
290	327	366	405	443	481	518	553	587	618	646	672	693	717	733	745	753	759	761	761	757	751	742
45	.26	.29	.32	.34	.37	.40	.42	.45	.47	.49	.51	.53	.54	.56	.57	.57	.58	.56	.58	.57	.57	.56
351	388	427	466	505	542	579	614	647	678	706	731	753	776	791	803	812	817	820	819	816	810	801
0800	.30	.33	.36	.39	.41	.44	.47	.49	.51	.53	.55	.57	.54	.60	.61	.61	.62	.62	.62	.61	.61	.60
409	448	486	525	564	601	638	672	705	736	764	789	815	833	848	860	868	874	876	875	873	867	859
15	.35	.37	.40	.43	.46	.48	.51	.53	.55	.57	.59	.61	.62	.64	.64	.65	.66	.66	.66	.66	.65	.64
466	504	543	582	620	658	694	728	761	791	819	844	869	887	902	914	922	928	931	930	927	922	914
306	.39	.41	.44	.47	.49	.52	.55	.57	.59	.61	.63	.64	.66	.67	.68	.69	.70	.70	.70	.69	.68	.68
521	559	597	636	674	711	747	782	814	844	871	896	921	939	954	965	974	980	982	982	980	974	967
45	.42	.45	.48	.51	.53	.56	.58	.61	.63	.65	.66	.68	.70	.71	.72	.73	.73	.73	.73	.73	.72	.71
572	610	649	687	725	762	738	832	864	894	921	945	970	988	992	002*	014*	023*028	*031*031	*029*024*	*017*008		
0900	.46	.49	.51	.54	.57	.59	.62	.64	.66	.68	.70	.71	.73	.74	.75	.76	.76	.76	.76	.76	.75	.75
621	659	697	736	773	810	846	879	911	940	967	991	*016	033	048*	060*	068*	074	*077*073	*076*071*	065*	056	
15	.49	.52	.55	.57	.60	.63	.65	.67	.69	.71	.73	.74	.76	.77	.78	.79	.79	.79	.79	.78	.78	.78
666	704	743	781	818	855	890	923	954	983*010*	034	*058	078	090*	102*	111*	117	*120*	121*	119*	115*	109*	101
30	.53	.55	.58	.61	.63	.66	.68	.70	.72	.74	.76	.77	.79	.80	.81	.82	.82	.82	.82	.82	.81	.81
709	746	784	822	859	896	930	963	994*023*	049*	073	*097	115	129*	141*	150*	156	*160*	161*	160*	156*	151*	143
45	.55	.58	.61	.63	.66	.68	.71	.73	.75	.77	.78	.80	.81	.82	.83	.84	.85	.85	.85	.84	.84	.84
747	785	823	860	897	933	967*000*	031*	059*	085*	108	*133*	150	164*	176*	185*	192	*196*	197*	195*	194*	189*	182

SEP-DEC 40 S

TABLE B-1 SOLAR PARAMETERS

COS Z

X0 (W/M**2.)

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					NOV					DEC							
	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30
1000	.58	.61	.63	.66	.68	.71	.73	.75	.77	.79	.81	.82	.84	.85	.86	.87	.87	.87	.87	.87	.86	.86	
	782	820	857	895	931	966	*000+033*063*091*117*140	*164+161+196*208*217*224	*228*230+230+227*223*217														
15	.60	.63	.66	.68	.71	.73	.75	.77	.79	.81	.83	.84	.86	.87	.88	.89	.89	.89	.89	.89	.89	.88	
	814	851	888	925	961	996	*029+061*091*119*144+167	*191+209+223+235*245+252	*257+259+259+257*254+248														
30	.62	.65	.68	.70	.72	.75	.77	.79	.81	.83	.84	.86	.87	.88	.89	.90	.90	.91	.91	.91	.91	.90	
	841	878	915	951	987+021	*054+086+116*143*168+191	*215+232+247+259+269+276	*281+284+284+284+281+276															
45	.64	.67	.69	.72	.74	.76	.78	.80	.82	.84	.86	.87	.89	.90	.90	.91	.92	.92	.92	.92	.92	.92	
	864	901	937	973+008+042	*075+06+136+163+188+210	*234+251+266+279+289+296	*302+305+307+306+304+299																
1100	.66	.68	.71	.73	.75	.78	.80	.82	.84	.85	.87	.88	.90	.91	.92	.93	.93	.94	.94	.94	.93	.93	
	883	919	955	991+026+059	*092+122+151+178+203+225	*249+266+281+294+304+312	*318+322+324+324+322+319																
15	.67	.69	.72	.74	.76	.78	.81	.83	.84	.86	.88	.89	.90	.91	.92	.93	.94	.94	.95	.95	.95	.94	
	898	934	969+004+039+072	*104+34+162+189+213+236	*260+277+292+305+316+324	*331+335+336+338+337+334																	
30	.67	.70	.72	.75	.77	.79	.81	.83	.85	.87	.88	.89	.91	.92	.93	.94	.94	.95	.95	.95	.95	.95	
	909	944	979+014+047+080	*111+141+169+196+220+242	*266+283+299+312+323+332	*339+344+347+348+348+346																	
45	.68	.70	.73	.75	.77	.79	.81	.83	.85	.87	.88	.90	.91	.92	.93	.94	.94	.95	.95	.95	.96	.96	
	915	950	984+018+051+084	*114+172+198+222+244	*268+285+301+314+326+335	*343+349+352+354+354+353																	
1200	.68	.70	.73	.75	.77	.79	.81	.83	.85	.86	.88	.89	.91	.92	.93	.94	.94	.95	.95	.95	.96	.96	
	917	951	985+018+051+083	*113+142+170+195+219+241	*265+263+299+313+324+334	*343+342+352+356+356+355																	
15	.68	.70	.72	.75	.77	.79	.81	.83	.84	.86	.87	.89	.90	.91	.92	.93	.94	.94	.95	.95	.96	.96	
	914	948	981+014+046+077	*107+136+163+188+212+234	*253+276+292+306+319+329	*338+345+350+353+354+354																	
30	.67	.70	.72	.74	.76	.78	.80	.82	.84	.85	.87	.88	.89	.91	.92	.93	.94	.94	.95	.95	.95	.95	
	907	940	973+005+037+068	*097+125+152+177+201+223	*247+265+281+296+309+320	*329+336+342+346+348+348																	
45	.66	.69	.71	.73	.75	.77	.79	.81	.82	.84	.86	.87	.88	.89	.90	.91	.92	.93	.93	.94	.94	.95	
	896	928	961	992+023+053	*082+10+137+162+185+207	*231+250+266+281+294+306	*316+324+330+335+337+338																

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TABLE B-1 SOLAR PARAMETERS CDS Z = 1.
XO (W/N - 1.2.) ADD 1000 TO VALUES PRECEDED BY .
*** SIGNIFIES COS Z = 1.

MST	SEP					OCT					NOV					DEC								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30						
1300	.65	.68	.70	.72	.74	.76	.78	.79	.81	.83	.84	.85	.87	.88	.89	.90	.91	.92	.93	.93	.94	.94		
	880	912	944	975	005	*035	*063	091	117	142	165	*187	*211	230	247	*262	276	*288	*298	307	314	319	*323	*324
15	.64	.66	.68	.70	.72	.74	.76	.78	.79	.81	.82	.84	.85	.86	.87	.88	.89	.90	.91	.92	.92	.92	.92	.92
	861	892	923	953	983	*012	*040	067	093	117	141	*163	*187	206	223	*239	253	*266	*277	*285	294	300	*304	*306
30	.62	.64	.66	.68	.70	.72	.74	.76	.77	.79	.80	.82	.83	.84	.85	.86	.87	.88	.89	.91	.91	.91	.91	.91
	837	867	897	927	956	985	*012	039	065	085	112	*134	*150	178	196	*212	227	*240	*252	*262	270	276	*281	*284
45	.60	.62	.64	.66	.68	.70	.72	.73	.75	.76	.78	.79	.81	.82	.83	.84	.85	.86	.87	.88	.88	.89	.89	.89
	808	838	868	897	926	954	981	*007	032	*057	*080	*192	*127	146	164	*181	196	*210	*222	*233	242	*249	*254	*257
1400	.58	.60	.62	.64	.65	.67	.69	.71	.72	.74	.75	.77	.78	.80	.81	.82	.83	.84	.84	.85	.86	.86	.86	.87
	777	806	835	863	891	919	946	971	996	*021	*044	*066	*091	111	129	*146	162	*177	*189	*203	210	218	*223	*227
15	.55	.57	.59	.61	.63	.64	.66	.68	.69	.71	.72	.74	.75	.77	.78	.79	.80	.81	.82	.83	.83	.84	.84	.84
	741	769	798	826	853	880	906	932	957	981	*004	*026	*052	072	090	*108	124	*139	*153	*164	174	183	*189	*193
30	.52	.54	.56	.58	.60	.61	.63	.65	.66	.68	.69	.71	.72	.74	.75	.76	.77	.78	.79	.80	.81	.81	.82	.82
	701	729	757	784	811	838	864	889	913	937	960	983	*009	029	048	*066	083	*099	*113	*125	136	144	*151	*156
45	.49	.51	.53	.54	.56	.58	.60	.61	.63	.64	.66	.67	.69	.70	.72	.73	.74	.75	.76	.77	.77	.78	.78	.79
	659	686	713	740	766	792	817	842	867	891	914	936	962	983	003	*021	038	*055	*069	*082	093	103	*110	*115
1500	.45	.47	.49	.51	.53	.54	.56	.58	.59	.61	.62	.64	.66	.67	.68	.69	.71	.72	.73	.73	.74	.75	.75	.76
	612	639	665	691	717	743	768	793	817	841	864	886	913	934	954	973	991	*007	*023	*035	048	*058	*065	*071
15	.42	.44	.45	.47	.49	.51	.52	.54	.55	.57	.59	.60	.62	.63	.64	.66	.67	.68	.69	.70	.71	.72	.72	.72
	563	589	615	640	666	691	716	740	764	788	811	834	860	882	902	922	940	957	973	987	999	010	*018	*024
30	.38	.40	.41	.43	.45	.47	.48	.50	.51	.53	.55	.56	.58	.59	.61	.62	.63	.64	.65	.65	.67	.68	.68	.69
	511	536	561	586	611	636	660	685	708	732	756	779	805	827	848	868	887	905	921	935	948	959	968	974
45	.34	.36	.37	.39	.41	.42	.44	.46	.47	.49	.50	.52	.54	.55	.57	.58	.59	.60	.61	.62	.63	.64	.65	.65
	456	481	505	530	554	578	603	627	650	674	698	721	746	770	792	812	831	850	866	881	895	906	915	921

TABLE B-1 SOLAR PARAMETERS $\cos Z = 1$
 SEP-DEC 40 S X0 (W/M* *2) *** SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY *

NST	SEP					OCT					NOV					DEC					
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	30
1600	.30	.31	.33	.35	.36	.38	.46	.41	.43	.44	.46	.48	.49	.51	.52	.54	.55	.56	.57	.59	.61
	399	423	447	471	495	519	543	566	590	614	637	661	688	711	733	754	774	792	809	825	839
15	.25	.27	.29	.30	.32	.33	.35	.37	.38	.40	.42	.43	.45	.47	.48	.49	.51	.52	.53	.54	.55
	340	363	387	410	433	457	481	504	528	552	575	599	627	650	672	693	714	733	751	767	781
30	.21	.22	.24	.26	.27	.29	.30	.32	.34	.35	.37	.39	.40	.42	.44	.45	.46	.48	.49	.50	.53
	279	301	324	347	370	393	417	440	464	488	512	535	564	587	610	631	652	672	690	705	721
45	.16	.18	.19	.21	.22	.24	.26	.27	.29	.31	.32	.34	.36	.37	.39	.41	.42	.43	.45	.46	.49
	216	238	260	283	305	328	351	375	398	422	446	470	493	523	546	568	589	609	628	645	659
1700	.11	.13	.14	.16	.18	.19	.21	.22	.24	.26	.27	.29	.31	.33	.34	.36	.37	.39	.40	.41	.44
	151	173	195	217	239	262	285	308	332	356	380	464	433	457	481	504	525	546	565	582	597
15	.06	.08	.10	.11	.13	.14	.16	.18	.19	.21	.23	.24	.26	.28	.30	.31	.33	.34	.36	.37	.40
	086	107	128	150	172	195	217	241	264	288	313	337	367	391	415	438	460	481	500	513	533
30	.02	.03	.05	.06	.08	.09	.11	.13	.14	.16	.18	.19	.22	.23	.25	.27	.28	.30	.31	.32	.35
	020	040	061	083	104	127	149	173	196	220	245	270	300	324	349	372	395	416	435	453	468
45	.00	.00	.00	.01	.03	.04	.06	.08	.09	.11	.13	.15	.17	.18	.20	.22	.23	.25	.26	.28	.30
	000	000	000	015	036	058	081	104	128	152	177	202	232	257	282	306	329	350	370	383	404
1800	.00	.00	.00	.00	.00	.00	.01	.03	.04	.06	.08	.10	.12	.14	.15	.17	.19	.20	.22	.23	.25
	000	000	000	000	000	000	012	036	059	084	109	134	165	190	215	240	263	285	305	323	348
15	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	.05	.07	.09	.11	.12	.14	.16	.17	.18	.20	.22
	000	000	000	000	000	000	000	000	016	041	067	098	124	149	174	197	219	239	253	273	287
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.04	.06	.08	.09	.11	.12	.14	.16
	000	000	000	000	000	000	000	000	000	000	000	000	032	053	083	108	132	154	175	193	209
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	.05	.06	.08	.10	.12
	000	000	000	000	000	000	000	000	000	000	000	000	000	018	043	067	090	000	110	129	145

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY +
TABLE B-1 SOLAR PARAMETERS COS Z
X0 (W/M**2.)

MST	SEP					OCT					NOV					DEC						
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30
1900	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.05	.05	.07	.07	.08
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	047	063	082	095	104	111
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.02	.03	.03
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	004	020	033	042	048
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	003	030	020	010	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

SEP-DEC 40 S TABLE B-1 SOLAR PARAMETERS $\cos Z$ =¹
 $X_0 (W/M^{**2})$ *** SIGNIFIES $\cos Z = 1$.
ADD 1000 TO VALUES PRECEDED BY *

NST	DATE																			
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0300 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00																				
013 .002 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000																				
15 .03 .02 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00																				
044 .032 .013 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000																				
30 .05 .05 .03 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00																				
077 .064 .046 .023 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000																				
45 .08 .07 .06 .04 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00																				
111 .099 .080 .057 .032 .003 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000																				
0400 .10 .10 .08 .07 .05 .03 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00																				
147 .134 .116 .093 .067 .039 .008 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000																				
15 .13 .12 .11 .09 .07 .05 .03 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00																				
184 .172 .153 .130 .105 .076 .045 .005 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000																				
30 .16 .15 .14 .12 .10 .08 .06 .03 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00																				
223 .210 .191 .169 .143 .115 .084 .044 .009 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000																				
45 .19 .18 .16 .15 .13 .11 .09 .06 .04 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00																				
262 .250 .231 .209 .183 .155 .124 .084 .050 .014 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000																				
0500 .21 .21 .19 .18 .16 .14 .12 .09 .07 .04 .01 .00 .00 .00 .00 .00 .00 .00 .00																				
303 .290 .272 .249 .224 .196 .165 .126 .091 .055 .019 .000 .000 .000 .000 .000 .000 .000 .000 .000																				
15 .24 .23 .22 .21 .19 .17 .15 .12 .10 .07 .04 .02 .00 .00 .00 .00 .00 .00 .00																				
344 .332 .313 .291 .266 .238 .207 .168 .134 .098 .062 .024 .000 .020 .000 .000 .000 .000 .000 .000																				
30 .27 .26 .25 .24 .22 .20 .18 .15 .13 .10 .08 .05 .01 .00 .00 .00 .00 .00 .00																				
386 .374 .355 .333 .308 .280 .250 .211 .177 .142 .105 .068 .008 .000 .000 .000 .000 .000 .000																				
45 .30 .29 .28 .27 .25 .23 .21 .18 .16 .13 .11 .08 .04 .01 .00 .00 .00 .00 .00																				
428 .416 .398 .376 .351 .324 .294 .255 .221 .186 .150 .113 .053 .016 .000 .000 .000 .000 .000																				

JAN-APR 60 S TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.) *** SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY +

MST	JAN					FEB					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0600	.33	.32	.31	.30	.28	.26	.24	.21	.19	.16	.14	.11	.07	.04	.02	.00	.00	.00	.00	
071	459	440	419	394	367	337	299	266	231	195	158	698	661	624	600	600	600	600	600	
15	.36	.35	.34	.33	.31	.29	.27	.24	.22	.20	.17	.15	.10	.08	.05	.02	.00	.00	.00	
514	502	463	462	438	411	381	343	310	275	259	203	144	136	109	032	000	000	000	000	
30	.39	.38	.37	.36	.34	.32	.30	.28	.25	.23	.20	.18	.14	.11	.08	.06	.03	.00	.00	
556	544	526	505	481	454	425	388	354	329	284	243	184	152	114	077	041	005	000	000	
45	.42	.41	.40	.39	.37	.35	.33	.31	.28	.26	.24	.21	.17	.14	.12	.09	.06	.04	.00	
598	586	569	548	524	498	469	432	399	364	329	293	234	196	159	122	085	049	006	000	
0700	.45	.44	.43	.42	.40	.38	.36	.34	.32	.29	.27	.24	.20	.17	.15	.12	.09	.07	.00	
640	628	611	590	567	541	512	475	443	409	373	337	278	241	204	166	129	093	050	015	
15	.48	.47	.46	.45	.43	.41	.39	.37	.35	.32	.30	.27	.23	.21	.18	.15	.13	.10	.00	
681	669	652	632	609	583	555	518	486	452	417	331	322	285	247	210	173	136	092	057	
30	.51	.50	.49	.48	.46	.44	.42	.40	.38	.35	.33	.30	.26	.24	.21	.18	.16	.13	.00	
721	710	693	673	650	625	597	561	528	495	460	424	365	328	290	253	215	178	134	093	
45	.54	.53	.52	.50	.49	.47	.45	.43	.41	.38	.36	.33	.29	.27	.24	.21	.19	.16	.03	
760	749	732	713	690	665	638	602	570	537	502	466	408	370	332	295	257	220	175	139	
0800	.56	.55	.53	.52	.50	.48	.46	.43	.41	.39	.36	.32	.30	.27	.24	.22	.19	.16	.03	
798	787	771	752	729	705	678	642	611	577	543	507	448	411	373	335	297	260	215	178	
15	.59	.58	.57	.56	.54	.53	.51	.48	.46	.44	.42	.39	.35	.33	.30	.27	.24	.19	.06	
834	824	808	789	767	743	716	681	650	617	582	547	488	451	413	374	336	298	253	216	
30	.61	.60	.58	.57	.55	.53	.51	.51	.49	.47	.44	.42	.38	.35	.33	.30	.27	.24	.19	
869	859	844	825	804	780	753	718	687	655	620	585	526	485	450	412	373	335	289	252	
45	.64	.63	.62	.61	.59	.58	.56	.54	.52	.49	.47	.45	.563	.525	.487	.448	.409	.370	.324	
903	893	878	860	839	815	789	754	724	691	657	621	608	570	532	493	454	415	376	337	

JAN-APR 60 S TABLE 6-1 SOLAR PARAMETERS $\cos^2 \chi_0$ (W/M^{*2}.)

** SIGNIFIES COS Z *1.
ADD 100 TO VALUES PRECEDED BY *

MST	DATE																													
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25
0900	.66	.65	.64	.63	.62	.60	.58	.56	.54	.52	.49	.47	.43	.40	.38	.35	.32	.29	.26	.23	.21	.18	.16	.13	.357	.313	.281	.245	.209	
	934	925	910	892	872	848	822	788	758	725	691	656	597	559	521	482	443	404												
15	.68	.67	.66	.65	.64	.62	.61	.58	.56	.54	.52	.49	.45	.43	.40	.37	.35	.32	.28	.25	.23	.20	.18	.15	.388	.343	.311	.274	.239	
	964	955	940	923	903	880	854	821	790	758	724	689	630	592	553	514	474	435												
30	.70	.69	.68	.67	.66	.64	.63	.60	.58	.56	.54	.52	.47	.45	.42	.39	.37	.34	.31	.28	.25	.22	.20	.17	.417	.373	.339	.302	.266	
	991	982	968	951	932	909	884	851	821	788	755	719	660	622	563	544	504	464												
45	.72	.71	.70	.69	.68	.66	.65	.62	.60	.58	.56	.54	.50	.47	.44	.41	.39	.36	.32	.30	.27	.24	.22	.19	.443	.404	.365	.327	.290	
	017	008	995	978	959	936	911	879	849	817	783	748	689	650	611	571	531	491												
1000	.73	.73	.72	.71	.70	.68	.66	.64	.62	.60	.58	.55	.51	.49	.46	.43	.40	.38	.34	.31	.29	.26	.23	.21	.467	.427	.383	.350	.313	
	040	*031	*018	*002	983	961	937	904	874	843	809	774	715	676	637	597	556	516												
15	.75	.74	.74	.72	.71	.70	.68	.66	.64	.62	.60	.57	.53	.50	.48	.45	.42	.39	.36	.33	.30	.27	.25	.22	.489	.443	.409	.370	.333	
	060	*052	*040	*024	*005	984	960	927	898	866	833	797	738	693	660	619	578	538												
30	.76	.76	.75	.74	.73	.71	.70	.67	.65	.63	.61	.59	.55	.52	.49	.46	.43	.41	.37	.34	.31	.29	.26	.23	.507	.467	.427	.388	.350	
	079	*071	*059	*043	*025	*004	980	948	919	887	854	818	759	720	680	639	598	557												
45	.77	.77	.76	.75	.74	.72	.71	.69	.67	.65	.62	.60	.56	.53	.50	.48	.45	.42	.38	.35	.33	.30	.27	.24	.524	.483	.442	.403	.365	
	094	*087	*075	*060	*042	*021	998	966	937	906	872	837	777	733	698	657	615	574												
1100	.78	.78	.77	.77	.76	.75	.72	.70	.68	.66	.63	.51	.57	.54	.52	.49	.46	.43	.39	.35	.33	.31	.28	.25	.537	.493	.455	.415	.377	
	107	*100	*089	*074	*057	*036	*013	981	952	921	888	852	792	753	712	671	629	587												
15	.79	.79	.78	.77	.76	.74	.73	.71	.69	.67	.64	.62	.55	.55	.52	.50	.47	.44	.40	.37	.34	.31	.29	.26	.548	.503	.465	.425	.387	
	117	*111	*100	*086	*068	*048	*025	994	965	934	901	865	805	765	725	683	641	599												
30	.80	.79	.78	.77	.76	.75	.73	.71	.69	.67	.65	.63	.59	.59	.56	.53	.50	.47	.44	.41	.35	.33	.32	.29	.26	.556	.514	.472	.432	.393
	125	*119	*108	*094	*078	*058	*035	-004	975	944	911	875	815	775	734	692	649	607												
45	.80	.79	.79	.78	.77	.75	.74	.72	.70	.68	.65	.53	.59	.56	.54	.51	.48	.45	.41	.33	.35	.32	.29	.27	.561	.513	.477	.436	.397	
	130	*124	*114	*100	*084	*064	*042	-011	982	951	916	882	821	781	740	698	655	612												

JAN-APR 60 S TABLE B-1 SGALAR PARAMETERS $\cos^2 x_0$ ($w/m**2$) ADD 1000 TO VALUES PRECEDED BY *.
 ** SIGNIFIES $\cos^2 z^{-1}$.

NST	JAN					FEB					MAR					APR								
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30					
1200	.80	.80	.79	.78	.77	.76	.74	.72	.70	.68	.66	.63	.59	.57	.54	.51	.48	.45	.41	.39	.35	.32	.29	.27
	*132*126*116*103*087*068*046							*015	987	955	922	886	825	785	743	701	658	615	563	529	478	437	398	361
15	.80	.80	.79	.78	.77	.76	.74	.72	.70	.68	.66	.64	.59	.57	.54	.51	.48	.45	.41	.39	.35	.32	.29	.27
	*131*126*116*104*088*069*047							*016	988	957	923	887	826	786	744	701	658	614	562	519	477	436	396	359
30	.80	.79	.79	.78	.77	.76	.74	.72	.70	.68	.66	.63	.59	.56	.54	.51	.48	.45	.41	.38	.35	.32	.29	.26
	*127*123*113*101*086*087*045							*015	986	955	922	886	824	783	741	698	655	611	558	515	472	431	392	354
45	.79	.79	.78	.78	.76	.75	.74	.72	.70	.68	.66	.63	.59	.56	.53	.50	.47	.44	.40	.37	.34	.31	.28	.26
	*121*117*108*096*080*062*040							*010	982	951	917	881	819	778	736	692	648	604	551	503	455	424	384	347
1300	.79	.78	.78	.77	.76	.75	.73	.71	.69	.67	.65	.63	.58	.56	.53	.50	.46	.43	.40	.37	.34	.31	.28	.25
	*112*108*099*086*073*054*033							*003	974	943	909	873	811	770	727	684	639	595	542	493	455	414	374	337
15	.78	.77	.77	.76	.75	.74	.73	.71	.69	.67	.64	.62	.56	.55	.52	.49	.46	.42	.39	.35	.33	.30	.27	.24
	*100*096*088*077*062*044*022							992	964	933	899	853	800	759	716	672	628	583	529	485	442	401	361	324
30	.77	.76	.76	.75	.74	.73	.72	.70	.68	.66	.63	.61	.57	.54	.51	.48	.45	.41	.38	.35	.31	.28	.26	.23
	*086*082*074*063*049*031*009							979	951	920	886	649	786	745	702	658	613	568	514	473	427	385	346	308
45	.76	.75	.75	.74	.73	.72	.70	.68	.67	.64	.62	.60	.55	.52	.50	.46	.43	.40	.36	.33	.30	.27	.24	.22
	*069*065*058*047*033*015	993						984	935	904	870	833	770	728	685	640	595	550	496	452	409	367	327	290
1400	.74	.74	.73	.73	.72	.71	.69	.67	.65	.63	.61	.58	.54	.51	.48	.45	.42	.39	.35	.32	.29	.26	.23	.20
	*049*046*039*028*014	996	975					945	917	885	851	814	751	709	665	621	575	530	476	431	398	347	307	269
15	.73	.72	.72	.71	.70	.69	.68	.66	.64	.62	.59	.57	.52	.50	.46	.43	.40	.37	.33	.30	.27	.24	.21	.18
	*027*024*017*007	993	975	954				924	896	864	830	793	729	637	643	598	553	507	453	403	365	323	284	246
30	.71	.71	.70	.70	.69	.67	.66	.64	.62	.60	.58	.55	.51	.48	.45	.42	.38	.35	.31	.28	.25	.22	.19	.16
	*063*000	993	983	969	952	930		901	872	840	806	769	705	662	618	573	527	482	427	383	339	298	258	221
45	.69	.69	.68	.68	.67	.66	.64	.62	.60	.58	.56	.53	.49	.46	.43	.40	.36	.33	.29	.26	.23	.20	.17	.14
	977	974	967	957	943	926	905	875	846	814	780	742	676	625	591	546	500	454	399	355	312	270	230	193

JAN-APR 60 S TABLE B-1 SOLAR PARAMETERS

COS Z X0 (W/m^2*2.)

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	DATE												APR											
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25
1500	.67	.67	.66	.66	.65	.64	.62	.60	.58	.56	.54	.51	.47	.44	.41	.37	.34	.31	.27	.24	.21	.18	.15	.12
	948	945	939	929	915	898	876	846	818	786	751	713	642	606	561	516	470	424	369	325	282	240	201	164
15	.65	.65	.64	.64	.63	.61	.60	.58	.56	.54	.51	.49	.44	.41	.38	.35	.32	.29	.25	.22	.18	.15	.13	.10
	917	915	909	899	885	867	846	816	787	755	720	662	617	574	529	484	438	392	337	293	250	208	169	132
30	.63	.62	.62	.61	.61	.60	.59	.58	.56	.54	.52	.49	.47	.42	.39	.36	.33	.26	.22	.19	.16	.13	.10	.07
	885	882	878	866	853	835	814	784	755	722	687	649	584	540	496	450	404	358	303	259	216	174	135	99
45	.60	.60	.60	.59	.58	.57	.55	.53	.51	.49	.47	.44	.39	.36	.33	.30	.27	.24	.20	.16	.13	.10	.07	.05
	850	848	842	832	819	801	780	749	720	688	652	614	543	505	460	414	368	322	267	223	180	139	100	664
1600	.58	.57	.57	.56	.55	.54	.53	.51	.49	.46	.44	.41	.37	.34	.31	.27	.24	.21	.17	.14	.11	.08	.05	.02
	815	812	806	797	783	765	744	713	684	651	616	577	511	468	423	377	331	284	230	185	143	102	63	27
15	.55	.55	.54	.54	.53	.52	.50	.48	.46	.44	.41	.39	.34	.31	.28	.25	.21	.18	.14	.11	.08	.05	.02	.00
	777	775	769	759	746	728	706	675	646	613	577	539	473	429	384	338	291	245	191	147	104	63	25	00
30	.52	.52	.52	.51	.50	.49	.47	.45	.43	.41	.38	.36	.31	.28	.25	.22	.18	.15	.11	.08	.05	.02	.00	00
	739	737	731	721	707	689	667	636	607	574	538	499	432	388	343	297	251	205	150	105	664	24	00	00
45	.49	.49	.49	.48	.47	.46	.45	.42	.40	.38	.36	.33	.28	.25	.22	.19	.15	.12	.08	.05	.02	.00	.00	00
	699	697	691	681	667	649	627	596	566	533	497	458	391	347	302	256	209	163	109	665	23	00	00	00
1700	.47	.46	.46	.45	.44	.43	.42	.39	.37	.35	.33	.30	.25	.22	.19	.15	.12	.09	.05	.02	.00	.00	.00	00
	658	657	650	640	626	608	586	554	524	491	455	415	342	304	259	213	167	121	667	23	03	00	00	00
15	.44	.43	.43	.42	.41	.40	.39	.36	.34	.32	.29	.27	.22	.19	.16	.12	.09	.06	.02	.00	.00	.00	.00	00
	617	615	609	599	584	566	544	512	482	448	411	372	305	261	215	169	123	77	623	03	03	00	00	00
30	.41	.41	.40	.39	.38	.37	.36	.33	.31	.29	.26	.24	.19	.16	.12	.09	.06	.02	.00	.00	.00	.00	.00	00
	575	573	567	557	542	523	501	469	438	405	368	328	261	216	171	125	97	33	600	03	03	00	00	00
45	.38	.38	.37	.36	.35	.34	.32	.30	.28	.26	.23	.20	.16	.12	.09	.06	.03	.00	.00	.00	.00	.00	.00	00
	533	531	524	514	499	480	458	425	394	360	323	284	216	171	126	80	034	000	600	03	00	00	00	00

JAN-APR 60 S TABLE B-1 SOLAR PARAMETERS

COS Z
X0 (W/M**2.)*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY +

MST	DATE												APR								
	1	5	10	15	20	25	30	5	10	15	20	25	5	10	15	20	25	30	5	10	
1800	.35	.34	.33	.32	.31	.29		.27	.25	.23	.20	.17	.12	.09	.06	.03	.00	.00	.00	.00	.00
	490	488	482	471	456	437	414	381	350	316	279	239	171	126	861	035	000	000	000	000	000
15	.32	.31	.30	.29	.28	.26		.24	.22	.19	.17	.14	.09	.06	.03	.00	.00	.00	.00	.00	.00
	448	445	439	428	412	393	370	337	306	271	234	194	126	881	036	000	000	000	000	000	000
30	.29	.28	.27	.26	.25	.23		.21	.19	.16	.14	.11	.06	.03	.00	.00	.00	.00	.00	.00	.00
	405	403	396	385	369	350	326	293	261	226	189	149	080	036	000	000	000	000	000	000	000
45	.26	.25	.24	.23	.22	.20		.18	.15	.13	.10	.07	.03	.00	.00	.00	.00	.00	.00	.00	.00
	363	360	353	342	326	306	282	249	217	182	144	104	035	000	000	000	000	000	000	000	000
1900	.23	.23	.22	.21	.20	.19	.17	.15	.12	.10	.07	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00
	321	319	311	299	283	263	239	205	173	138	100	059	000	000	000	000	000	000	000	000	000
15	.20	.20	.19	.18	.17	.16	.14	.12	.09	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00
	280	277	270	258	241	221	196	162	130	094	056	016	000	000	000	000	000	000	000	000	000
30	.17	.17	.16	.15	.14	.13	.11	.09	.06	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	240	237	229	217	210	179	155	120	087	052	013	000	000	000	000	000	000	000	000	000	000
45	.14	.14	.13	.13	.11	.10	.08	.06	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	201	198	190	177	160	139	114	079	046	010	000	000	000	000	000	000	000	000	000	000	000
2000	.12	.11	.11	.10	.09	.07	.05	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	163	160	151	138	121	099	074	038	005	006	000	000	000	000	000	000	000	000	000	000	000
15	.09	.09	.08	.07	.06	.04	.03	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00
	127	123	114	101	083	061	035	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.07	.06	.06	.05	.03	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	092	088	078	065	046	024	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.04	.04	.03	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	059	054	044	030	012	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

MST	JAN					FEB					DATE					MAR					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30	
2100	.02	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0227	.022	.022	.012	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

JAN-APR 60 S TABLE B-1

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					DATE					AUG					
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15
0700	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0800	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.06	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.08	.06	.04	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0900	.11	.08	.06	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.13	.11	.09	.07	.05	.03	.02	.01	.00	.00	.00	.00	.00	.00	.01	.02	.04	.05	.07	.09	.12
30	.15	.13	.10	.09	.07	.05	.04	.03	.02	.02	.02	.02	.02	.02	.03	.04	.06	.07	.09	.11	.14
45	.17	.14	.12	.10	.09	.07	.06	.05	.04	.04	.04	.04	.04	.04	.05	.06	.07	.09	.11	.13	.15
MAY-AUG	60	S	TABLE B-1 SOLAR PARAMETERS CCS ² X ₀ (w/MM**2.)																		

*** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

PREVIOUS PAGE
IS BLANK

MST	MAY										JUN										JUL										AUG									
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30																
1000	.18	.16	.14	.12	.10	.09	.07	.06	.06	.05	.05	.05	.06	.07	.08	.09	.11	.13	.15	.17	.20	.23	.26	.29																
	244	213	184	158	135	115	095	082	074	069	067	070	077	087	101	119	141	166	200	232	267	304	343	384																
15	.20	.17	.15	.13	.12	.10	.09	.08	.07	.07	.07	.07	.07	.08	.09	.11	.12	.14	.17	.19	.22	.24	.27	.30																
	264	232	203	177	153	133	114	101	092	087	085	089	096	107	121	139	161	186	221	253	288	325	364	405																
30	.21	.19	.16	.14	.13	.11	.10	.09	.08	.08	.08	.08	.09	.11	.12	.14	.15	.18	.20	.23	.26	.29	.32																	
	280	249	220	193	170	150	136	118	109	104	102	106	113	124	139	157	179	204	239	271	305	343	382	423																
45	.22	.20	.17	.16	.14	.12	.11	.10	.09	.09	.09	.09	.10	.11	.12	.13	.15	.17	.19	.22	.24	.27	.30	.33																
	295	263	233	207	184	163	144	131	123	118	118	121	126	139	154	172	195	220	255	287	322	359	398	438																
1100	.23	.20	.18	.16	.15	.13	.12	.11	.10	.10	.10	.10	.11	.11	.13	.14	.16	.18	.20	.23	.25	.28	.31	.34																
	306	274	245	218	195	175	155	143	135	130	130	133	140	152	167	185	208	233	268	300	335	372	411	451																
15	.23	.21	.19	.17	.15	.14	.12	.11	.11	.11	.11	.11	.11	.12	.13	.15	.16	.18	.21	.23	.26	.29	.31	.34																
	315	283	254	227	203	183	164	152	144	139	139	143	150	162	177	196	218	244	278	311	345	382	421	461																
30	.24	.22	.19	.17	.16	.14	.13	.12	.11	.11	.11	.11	.12	.13	.14	.15	.17	.19	.22	.24	.26	.29	.32	.35																
	322	289	260	233	210	190	170	158	150	146	146	150	157	169	184	203	226	251	286	313	353	390	428	468																
45	.24	.22	.20	.18	.16	.15	.13	.12	.12	.11	.11	.12	.12	.13	.14	.16	.17	.19	.22	.24	.27	.30	.32	.35																
	325	293	263	236	213	193	174	162	154	150	150	154	162	174	189	208	231	257	291	324	358	395	433	473																
1200	.24	.22	.20	.18	.16	.15	.13	.12	.12	.11	.12	.12	.12	.13	.15	.16	.18	.20	.22	.24	.27	.30	.32	.35																
	326	293	264	237	214	194	175	163	155	152	152	156	164	176	192	211	233	259	294	323	350	397	435	474																
15	.24	.22	.20	.18	.16	.14	.13	.12	.12	.11	.11	.12	.12	.13	.14	.16	.18	.20	.22	.24	.27	.30	.32	.35																
	324	291	262	235	212	192	173	162	154	151	151	155	164	176	191	211	233	259	294	326	350	396	434	473																
30	.24	.21	.19	.17	.16	.14	.13	.12	.11	.11	.11	.12	.12	.13	.14	.16	.17	.19	.22	.24	.27	.29	.32	.35																
	319	287	257	230	207	188	169	158	150	147	147	152	160	173	186	208	230	256	291	322	356	392	430	469																
45	.23	.21	.19	.17	.15	.14	.12	.11	.11	.11	.11	.11	.12	.12	.13	.14	.15	.17	.19	.21	.24	.26	.29	.32	.34															
	312	279	249	223	200	181	162	151	144	141	141	146	155	167	183	202	225	251	285	317	350	386	423	462																

MAY-AUG 60 S TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2.) *** SIGNIFIES' COS Z =1.
ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					DATE					AUG							
	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30	
1300	.22	.20	.18	.16	.14	.13	.12	.11	.10	.10	.11	.12	.13	.15	.16	.18	.21	.23	.26	.28	.31	.34	
301	269	239	213	190	171	153	142	135	132	133	138	146	159	175	194	217	242	277	303	342	377	414	452
15	.21	.19	.17	.15	.13	.12	.11	.10	.09	.09	.10	.10	.11	.12	.14	.16	.17	.20	.22	.25	.27	.30	.33
288	256	227	200	178	159	141	130	123	120	122	127	135	148	164	183	206	231	266	297	330	365	402	440
30	.20	.18	.16	.14	.12	.11	.10	.09	.08	.08	.09	.10	.11	.13	.15	.16	.19	.21	.24	.26	.29	.32	
273	241	211	185	163	144	126	116	109	107	108	113	122	135	151	170	193	218	252	283	316	351	387	425
45	.19	.17	.14	.13	.11	.10	.08	.07	.07	.07	.07	.08	.09	.10	.12	.13	.15	.18	.20	.22	.25	.28	.30
255	223	194	168	145	127	109	99	93	92	92	97	106	119	135	154	177	202	236	267	299	334	370	407
1400	.17	.15	.13	.11	.09	.08	.07	.06	.05	.06	.06	.07	.08	.09	.10	.12	.14	.16	.19	.21	.24	.26	.29
234	202	173	148	126	107	090	080	074	072	074	079	083	101	117	136	159	184	217	243	260	314	350	386
15	.16	.13	.11	.09	.08	.06	.05	.04	.04	.04	.04	.05	.06	.07	.09	.10	.12	.15	.17	.19	.22	.24	.27
211	180	151	125	104	085	069	059	053	051	053	058	068	080	097	116	138	163	196	225	253	292	327	364
30	.14	.12	.09	.08	.06	.05	.03	.03	.02	.02	.02	.03	.03	.04	.06	.07	.09	.11	.13	.15	.18	.20	.25
186	155	126	101	079	061	045	036	030	028	030	036	045	058	074	093	115	140	173	203	234	268	303	338
45	.12	.10	.07	.06	.04	.03	.01	.01	.00	.00	.01	.02	.03	.04	.05	.07	.09	.11	.13	.15	.18	.21	.23
159	127	99	74	053	035	019	010	005	003	005	011	020	033	049	068	090	115	147	177	208	241	276	311
1500	.10	.07	.05	.03	.02	.01	.00	.00	.00	.00	.00	.00	.01	.02	.03	.05	.07	.09	.11	.14	.16	.18	.21
129	098	070	046	025	007	000	000	000	000	000	000	000	006	022	041	063	088	120	149	180	213	246	281
15	.07	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	.04	.07	.09	.11	.14	.16	.19
098	067	039	015	000	000	000	000	000	000	000	000	000	030	030	030	034	058	090	119	150	182	215	250
30	.05	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.04	.07	.09	.11	.14	.16	
065	034	007	000	000	000	000	000	000	000	000	000	000	003	000	000	027	059	087	113	149	182	216	
45	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.04	.07	.09	.11	.14	
030	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	026	054	084	115	148	181

MAY-AUG 60 S

TABLE B-1 SOLAR PARAMETERS

COS Z

X0 (W/m**2.)

*** SIGNIFIES COS Z = 1.

ADD 1000 TO VALUES PRECEDED BY *

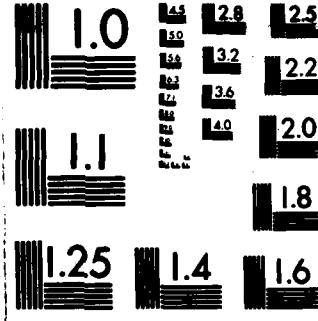
MST	MAY					JUN					JUL					AUG					
	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	
1600	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.06	.08	.11	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	019	043	079	111	144	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	.06	.08	
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	003	011	042	073	106
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.05		
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	003	034	067		
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02		
	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	026	

MAY-AUG 60 5 TABLE B-1 SOLAR PARAMETERS $\cos Z = 1.$
 $x_0 (w/m^2*2.)$ ADD 1000 TO VALUES PRECEDED BY *

AD-A148 096 OPERATIONAL TACTICAL DECISION AID (OTDA) FOR INFRARED
(8-12 MICROMETERS)...(U) SYSTEMS AND APPLIED SCIENCES
CORP VIENNA VA D B HODGES 30 SEP 83 SCIENTIFIC-8-VOL-3
UNCLASSIFIED AFGL-TR-83-0334-VOL-3 F19628-81-C-0042 F/G 4/1 NL

4/4

END
DATE
RECD
85
DTIC



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

MST	SEP					OCT					NOV					DEC									
	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	30				
0200	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00				
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000				
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00				
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000				
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00				
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000				
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00				
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000				
0300	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.02	.02	.02	.01				
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	019	023	033	028	019				
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.03	.04	.04	.05	.04	.04				
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	051	053	061	064	050				
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	.05	.06	.07	.07	.07	.06				
000	000	000	000	000	000	000	000	000	000	000	000	000	000	010	015	056	073	095	091	097	092	082			
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	.05	.07	.08	.09	.09	.08				
000	000	000	000	000	000	000	000	000	000	000	000	000	000	019	027	072	092	109	121	122	133	126	117		
0400	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.04	.06	.08	.09	.10	.11	.12	.12	.11		
000	000	000	000	000	000	000	000	000	000	000	000	000	000	027	058	056	110	130	146	158	163	168	162	152	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.07	.09	.11	.12	.13	.14	.14	.14	.13		
000	000	000	000	000	000	000	000	000	000	000	000	000	000	067	098	125	149	169	185	197	201	207	206	200	190
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.08	.10	.12	.14	.15	.16	.17	.17	.17	.16		
000	000	000	000	000	000	000	000	000	000	000	000	000	000	067	100	139	166	190	225	236	243	244	238	228	
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.11	.13	.15	.17	.18	.19	.20	.20	.19	.19		
000	000	000	000	000	000	000	000	000	000	000	000	000	000	150	181	208	231	250	266	277	284	295	278	268	

SEP-DEC 60 S

TABLE B-1 SOLAR PARAMETERS

COS Z = 1
 X0 (W/m²*2.)
 ADD 1000 TO VALUES PRECEDED BY +

MST	SEP					OCT					NOV					DEC								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10				
0500	.00	.00	.00	.00	.00	.00	.00	.03	.06	.09	.11	.14	.16	.18	.20	.21	.22	.23	.23	.23	.22			
	000	000	000	000	000	000	000	035	077	116	153	193	223	250	273	292	307	316	323	325	319	309		
15	.00	.00	.00	.00	.00	.00	.00	.03	.06	.12	.14	.17	.16	.21	.23	.24	.25	.26	.25	.26	.26	.25		
	000	000	000	000	000	000	000	037	079	121	160	136	236	266	293	316	335	349	366	365	367	360	350	
30	.00	.00	.00	.00	.00	.00	.00	.03	.06	.09	.12	.15	.17	.20	.22	.24	.26	.29	.29	.28	.28	.28		
	000	000	000	000	000	000	000	037	081	124	165	204	240	280	310	356	359	377	392	402	401	392	392	
45	.00	.00	.00	.00	.00	.00	.00	.06	.09	.12	.15	.18	.21	.23	.25	.27	.29	.30	.31	.31	.31	.31		
	000	000	000	000	000	000	000	037	082	126	168	209	248	295	324	354	360	402	420	435	445	444	434	
0600	.00	.00	.00	.00	.00	.00	.00	.00	.03	.06	.12	.16	.18	.21	.24	.26	.28	.30	.33	.34	.35	.34		
	000	000	000	000	000	000	000	000	036	081	126	170	213	254	293	329	361	397	423	445	463	478	488	
15	.00	.00	.00	.00	.00	.00	.00	.00	.03	.06	.09	.13	.16	.19	.22	.24	.27	.30	.32	.33	.36	.37		
	000	000	000	000	000	000	000	035	080	126	171	215	258	298	337	373	412	441	467	488	506	520	530	
30	.00	.00	.00	.00	.00	.00	.00	.00	.03	.06	.09	.16	.19	.22	.25	.27	.30	.33	.35	.36	.37	.37		
	000	000	000	000	000	000	000	033	079	125	170	215	259	302	342	381	416	455	484	509	531	549	563	573
45	.00	.02	.06	.09	.12	.16	.19	.22	.25	.28	.31	.33	.36	.38	.39	.41	.42	.43	.44	.41	.41	.43		
	000	032	077	122	168	214	259	303	345	386	424	459	498	527	552	573	591	605	614	622	620	614	604	
0700	.02	.06	.09	.12	.16	.19	.22	.25	.28	.31	.34	.36	.39	.41	.42	.44	.45	.46	.47	.47	.47	.46		
	031	075	120	165	211	257	302	346	388	428	466	502	540	569	604	615	632	646	656	661	661	655	645	
15	.05	.09	.12	.15	.19	.22	.25	.26	.31	.34	.37	.39	.42	.44	.45	.47	.48	.49	.49	.50	.49	.49		
	073	117	162	208	253	299	344	388	430	470	508	543	581	609	634	655	673	686	696	702	704	696	686	
30	.08	.12	.15	.18	.22	.25	.28	.31	.34	.37	.40	.42	.45	.47	.48	.50	.51	.52	.53	.52	.52	.51		
	114	158	203	249	295	340	385	428	470	510	548	583	621	649	674	695	712	726	735	741	741	735	726	
45	.11	.15	.18	.21	.25	.28	.31	.34	.37	.40	.42	.45	.47	.49	.51	.52	.53	.55	.55	.55	.54	.54		
	154	198	243	289	334	360	425	468	510	550	587	622	660	686	712	733	750	764	774	779	791	780	785	

SEP-DEC 60 S TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M²-°K²) *** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY .

MST	SEP										OCT										NOV										DEC									
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30																
0800	.14	.18	.21	.24	.27	.31	.34	.37	.40	.43	.45	.47	.50	.52	.54	.55	.56	.57	.58	.53	.59	.58	.57	.57																
192	236	282	327	373	418	463	506	548	587	625	659	697	725	743	770	787	801	810	813	818	817	812	803																	
15	.17	.20	.24	.27	.30	.32	.36	.40	.42	.45	.48	.50	.53	.54	.56	.57	.59	.59	.60	.61	.64	.60	.60	.59																
229	273	319	364	410	455	500	543	584	624	661	695	733	760	785	823	836	846	852	854	853	848	839	839																	
30	.20	.23	.26	.29	.33	.36	.39	.42	.45	.48	.50	.53	.55	.57	.58	.60	.61	.62	.62	.63	.63	.62	.62																	
265	309	354	403	445	490	534	577	619	658	695	729	765	794	818	839	856	870	880	881	886	887	882	874																	
45	.22	.25	.29	.32	.35	.38	.41	.44	.47	.50	.52	.55	.57	.59	.61	.62	.63	.64	.65	.65	.65	.64	64																	
298	343	388	433	479	523	568	610	651	691	727	761	791	826	850	871	888	902	911	913	920	920	915	907																	
0900	.25	.28	.31	.34	.37	.41	.44	.47	.50	.52	.55	.57	.59	.61	.63	.64	.65	.66	.67	.67	.67	.67	.66																	
330	374	419	465	510	555	599	641	662	721	757	791	824	851	880	901	918	931	942	943	951	950	946	939																	
15	.27	.30	.33	.36	.40	.43	.46	.49	.52	.54	.57	.59	.61	.63	.65	.66	.67	.68	.69	.69	.69	.68	68																	
360	404	449	494	539	584	627	670	710	749	785	819	856	893	907	928	945	959	969	973	974	975	975	968																	
30	.29	.32	.35	.38	.42	.45	.48	.51	.53	.56	.59	.61	.63	.65	.67	.68	.69	.70	.71	.71	.71	.70	70																	
387	431	476	521	566	610	654	696	736	775	811	845	881	909	933	954	971	985	995	996	996	996	995	995																	
45	.31	.34	.37	.40	.43	.46	.49	.52	.55	.58	.60	.62	.65	.67	.68	.70	.71	.72	.72	.74	.73	.73	.72																	
413	457	501	546	591	635	678	720	760	793	834	868	904	932	956	977	994	998	1019	1020	1046	1030	1027	1021																	
1000	.32	.36	.39	.42	.45	.48	.51	.54	.57	.59	.62	.64	.66	.68	.70	.71	.72	.73	.74	.74	.74	.74	.74																	
436	479	524	563	613	657	700	741	781	819	855	899	925	952	976	997	1015	1029	1040	1047	1051	1052	1049	1043																	
15	.34	.37	.40	.43	.46	.49	.52	.55	.58	.61	.63	.65	.69	.71	.72	.74	.74	.75	.75	.76	.76	.75	75																	
456	500	544	588	632	676	719	760	800	838	873	907	943	970	994	1015	1033	1047	1059	1063	1071	1072	1063	1064																	
30	.35	.38	.41	.45	.48	.51	.54	.56	.59	.62	.64	.66	.69	.71	.72	.73	.75	.76	.76	.77	.77	.76	76																	
474	517	561	605	649	693	735	776	816	853	899	922	953	985	1010	1031	1049	1063	1075	1081	1087	1089	1087	1082																	
45	.36	.39	.43	.46	.49	.52	.55	.57	.60	.63	.67	.70	.71	.72	.74	.76	.76	.77	.77	.78	.78	.78	78																	
489	532	576	620	663	706	748	789	829	866	901	935	971	996	1022	1043	1062	1077	1088	1097	1097	1097	1097	1097																	

TABLE 9-1 SOLAR PARAMETERS (US / M/M+2.) SEP-DEC 60 S SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY +.

MST	SEP					OCT					NOV					DEC								
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15			
1100	.37	.40	.43	.46	.50	.53	.55	.58	.61	.63	.66	.68	.70	.72	.74	.75	.76	.77	.78	.74	.76	.79	.78	
502	544	588	631	675	717	759	800	839	876	911	944	931	908	842	804	754	702	654	607	567	529	491	453	
15	.38	.41	.44	.47	.50	.53	.56	.59	.61	.64	.66	.68	.71	.73	.74	.76	.77	.78	.79	.74	.77	.80	.79	.79
511	554	597	640	683	726	767	807	846	883	918	951	927	815	759	701	651	601	561	529	491	453	415	376	
30	.38	.41	.45	.48	.51	.53	.56	.59	.62	.64	.67	.69	.71	.73	.75	.76	.77	.78	.79	.74	.79	.80	.80	.80
518	560	603	646	689	731	772	812	851	883	923	955	992	810	754	704	654	604	565	525	485	445	405	365	
45	.39	.42	.45	.48	.51	.54	.56	.59	.62	.64	.67	.69	.71	.73	.75	.76	.77	.78	.79	.84	.80	.80	.80	.80
522	564	607	649	691	733	774	814	852	889	924	957	993	810	754	704	654	604	567	526	486	446	406	366	
1200	.39	.42	.45	.48	.51	.54	.56	.59	.62	.64	.67	.69	.71	.73	.75	.76	.77	.78	.79	.80	.80	.80	.80	.80
523	565	607	649	691	733	773	813	851	887	922	955	991	810	754	704	654	604	566	526	486	446	406	366	
15	.39	.42	.45	.48	.51	.53	.56	.59	.61	.64	.66	.68	.71	.73	.74	.76	.77	.78	.79	.80	.80	.80	.80	.80
522	563	605	646	688	729	769	809	847	883	919	950	987	814	759	709	659	609	569	529	489	449	409	369	
30	.38	.41	.44	.47	.50	.53	.56	.58	.61	.63	.65	.68	.70	.72	.74	.75	.76	.78	.78	.80	.80	.80	.80	.80
517	558	599	641	682	723	763	802	839	876	910	943	973	807	757	707	657	607	555	505	455	405	355	305	255
45	.38	.41	.44	.47	.49	.52	.55	.58	.60	.63	.65	.67	.70	.71	.73	.75	.76	.77	.78	.79	.79	.79	.79	.79
510	550	591	632	673	713	753	792	829	865	900	932	969	817	757	707	657	607	565	525	485	445	405	365	326
1300	.37	.40	.43	.46	.49	.51	.54	.57	.59	.62	.64	.66	.69	.70	.72	.74	.75	.76	.77	.73	.73	.79	.79	.79
500	540	580	621	661	701	741	779	816	852	887	919	955	824	761	701	653	603	553	503	453	403	353	303	
15	.36	.39	.42	.45	.47	.50	.53	.56	.58	.61	.63	.65	.67	.69	.71	.73	.74	.75	.76	.77	.77	.77	.77	.77
487	526	566	607	647	686	725	764	801	837	871	904	940	864	814	764	704	654	604	554	504	454	404	354	
30	.35	.38	.41	.43	.46	.49	.52	.54	.57	.59	.62	.64	.66	.68	.70	.71	.73	.74	.75	.76	.77	.77	.77	.77
45	.34	.36	.39	.42	.45	.47	.50	.53	.55	.58	.60	.62	.65	.67	.68	.70	.71	.72	.74	.74	.75	.76	.76	.76
453	491	531	570	609	648	687	725	761	797	831	864	901	825	765	705	655	605	580	505	455	405	355	305	

TABLE B-1 SOLAR PARAMETERS $\cos^2 x_0$ ($W/m^2 \cdot 2$) ADD 1000 TO VALUES PRECEDED BY *

*** SIGNIFIES COS $z = 1$.

NST	SEP					OCT					NOV					DEC				
	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25
1400	.32	.35	.40	.43	.46	.48	.51	.54	.56	.58	.60	.63	.65	.67	.68	.70	.71	.72	.73	.74
	432	470	509	548	587	624	664	701	738	773	808	840	877	906	933	957	979	998	.015*023*039*046*050*050	
15	.30	.33	.36	.39	.41	.44	.47	.49	.52	.54	.56	.59	.61	.63	.65	.66	.68	.69	.70	.71
	406	446	485	523	562	600	638	675	712	747	782	814	857	881	906	932	954	974	.015*023*027*028	
30	.28	.31	.34	.37	.39	.42	.45	.47	.50	.52	.54	.57	.59	.61	.63	.65	.66	.67	.68	.69
	383	420	459	498	535	573	610	647	684	719	753	786	824	853	880	905	927	947	965	971
45	.26	.29	.32	.34	.37	.40	.42	.45	.47	.50	.52	.54	.57	.59	.61	.62	.64	.65	.66	.67
	355	392	429	467	505	543	580	617	653	689	723	756	793	823	850	875	898	919	936	951
1530	.24	.27	.32	.35	.37	.40	.43	.45	.47	.50	.52	.55	.57	.58	.60	.62	.63	.64	.65	.67
	325	361	398	436	473	511	548	585	621	656	691	723	761	791	816	844	867	888	906	921
15	.22	.24	.27	.30	.32	.35	.38	.40	.43	.45	.47	.50	.52	.54	.56	.58	.59	.61	.62	.63
	293	329	365	403	440	477	514	550	586	621	656	689	727	757	785	811	834	855	874	893
30	.19	.22	.24	.27	.30	.32	.35	.37	.40	.42	.45	.47	.50	.52	.54	.55	.57	.58	.60	.61
	259	294	331	367	404	441	479	514	550	585	620	653	691	721	749	776	800	821	840	855
45	.17	.19	.22	.24	.27	.30	.32	.35	.37	.40	.42	.44	.47	.49	.51	.53	.54	.56	.57	.58
	223	258	294	330	367	403	443	476	512	547	582	615	654	684	712	739	763	785	804	820
1600	.14	.16	.19	.22	.24	.27	.29	.32	.34	.37	.39	.41	.44	.46	.48	.50	.52	.53	.54	.55
	185	220	256	292	328	365	401	437	473	508	542	576	615	645	674	701	725	747	767	783
15	.11	.13	.16	.19	.21	.24	.26	.29	.31	.34	.36	.39	.41	.43	.45	.47	.49	.50	.52	.53
	147	161	181	217	252	288	324	360	396	432	467	502	536	574	605	634	662	686	709	723
30	.08	.10	.13	.16	.18	.21	.23	.26	.28	.31	.33	.36	.38	.40	.42	.44	.46	.48	.49	.50
	107	141	176	211	247	283	319	355	390	426	460	494	533	564	594	621	646	669	689	705
45	.05	.07	.10	.12	.15	.18	.20	.23	.25	.28	.30	.33	.35	.37	.39	.41	.43	.45	.46	.47
	666	100	134	169	204	240	276	312	348	383	413	452	491	522	552	580	605	628	648	665

TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/m²*2.) SEP-DEC

** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

MST	SEP					OCT					NOV					DEC							
	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20		
1700	.02	.04	.07	.09	.12	.14	.17	.20	.22	.25	.27	.29	.32	.34	.36	.38	.40	.42	.43	.44	.46	.47	
024	057	091	126	161	197	233	268	304	339	374	419	443	470	510	538	563	587	607	621	638	649	655	658
15	.05	.01	.04	.06	.09	.11	.14	.16	.19	.21	.24	.26	.29	.31	.33	.35	.37	.39	.40	.41	.42	.43	.44
000	014	048	083	118	153	189	224	260	295	333	365	405	437	467	495	521	544	565	583	597	607	614	617
50	.00	.00	.00	.03	.05	.08	.11	.13	.16	.18	.21	.23	.26	.28	.30	.32	.34	.36	.37	.39	.40	.40	.41
000	000	004	038	073	109	144	183	216	251	236	321	361	393	423	452	478	502	523	543	555	565	572	575
45	.00	.00	.00	.00	.02	.05	.07	.10	.12	.15	.17	.20	.23	.25	.27	.29	.31	.33	.34	.35	.36	.37	.38
000	000	000	000	029	064	099	135	171	207	242	277	317	346	360	409	435	459	480	493	512	523	530	533
1800	.00	.00	.00	.00	.00	.01	.04	.07	.09	.12	.14	.17	.20	.22	.24	.26	.28	.30	.31	.32	.33	.34	.35
000	000	000	000	000	019	055	090	126	162	198	232	273	305	336	365	392	416	437	455	470	481	487	490
15	.00	.00	.00	.00	.00	.00	.01	.03	.06	.09	.11	.14	.16	.19	.21	.23	.25	.27	.28	.29	.30	.31	.32
000	000	000	000	000	000	010	046	082	118	153	148	229	262	293	322	349	373	395	413	427	438	445	448
30	.00	.00	.00	.00	.00	.00	.00	.00	.03	.05	.08	.10	.13	.16	.18	.20	.22	.24	.25	.25	.27	.28	.29
000	000	000	000	000	000	060	002	038	074	110	145	180	219	250	279	307	331	352	371	395	396	403	405
45	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.07	.10	.13	.15	.17	.19	.21	.22	.23	.24	.25	.26	.26
000	000	000	000	000	030	000	000	030	066	102	143	176	208	237	264	289	311	329	343	354	361	363	
1900	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00	.02	.04	.07	.10	.12	.14	.16	.18	.19	.20	.21	.22	.23
000	000	000	000	000	000	000	000	000	000	024	059	101	134	166	196	223	248	269	286	303	313	319	322
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.01	.04	.07	.09	.11	.13	.15	.16	.15	.19	.20	.20
000	000	000	000	000	000	000	000	000	000	000	018	050	083	125	155	183	207	229	247	262	272	279	281
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.06	.08	.10	.12	.13	.15	.16	.17	.17
000	000	000	000	000	000	000	000	000	000	000	000	020	054	086	116	143	168	190	203	222	233	239	241
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	.06	.08	.09	.11	.12	.13	.14	.14
000	000	000	000	000	000	000	000	000	000	000	000	000	015	047	077	105	130	151	173	184	194	200	202

SEP-DEC 60 S TABLE B-1 SOLAR PARAMETERS $\cos Z$
 $x_0 (W/M \cdot \text{deg}^2)$ *** SIGNIFIES COS Z = 1.
 ADD 1000 TO VALUES PRECEDED BY *

NST	SEP					OCT					NOV					DEC				
	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25	5	10	15	20	25
2000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	.05	.07	.08	.09	.10	.11	.12
000	000	000	000	000	000	000	000	000	000	000	000	0.0	0.41	0.68	0.93	115	133	117	157	163
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.04	.06	.07	.08	.09	.09
000	000	000	000	000	000	000	000	000	000	000	000	000	000	033	058	079	0.97	111	121	127
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.03	.05	.06	.07	.07
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	024	045	063	077	087	092
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.02	.03	.04	.04
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	014	031	045	054	060
2100	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.02	.02
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	014	023	026
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

SEP-DEC 60 S TABLE B-1: SOLAR PARAMETERS $\cos Z_{x_0}$ (W/m²•2.) * SIGNIFIES $\cos Z = 1$.
ADD 1000 TO VALUES PRECEDED BY .

NST	DATE										APR									
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0000	.23	.22	.21	.20	.18	.16	.14	.11	.08	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00
	320	312	297	277	253	226	194	153	114	074	031	000	000	000	000	000	000	000	000	000
15	.23	.22	.21	.20	.18	.16	.14	.11	.08	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00
	321	312	297	277	253	226	194	152	114	073	031	000	000	000	000	000	000	000	000	000
30	.23	.22	.21	.20	.18	.16	.14	.11	.08	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00
	322	313	298	278	254	226	195	153	114	074	031	000	000	000	000	000	000	000	000	000
45	.23	.22	.21	.20	.18	.16	.14	.11	.08	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00
	324	315	300	280	256	228	196	154	116	075	033	000	000	000	000	000	000	000	000	000
0100	.23	.22	.21	.20	.18	.16	.14	.11	.08	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00
	327	318	303	283	259	231	199	157	119	078	035	000	000	000	000	000	000	000	000	000
15	.23	.22	.20	.19	.17	.14	.11	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	331	322	306	286	262	234	203	160	122	082	039	000	000	000	000	000	000	000	000	000
30	.24	.23	.22	.21	.19	.17	.15	.12	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00
	336	327	311	291	267	239	207	165	127	086	044	000	000	000	000	000	000	000	000	000
45	.24	.22	.21	.19	.17	.15	.12	.09	.07	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	342	333	317	297	272	244	213	170	132	092	049	005	000	000	000	000	000	000	000	000
0200	.25	.24	.23	.21	.20	.18	.16	.13	.10	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00
	349	339	324	303	279	251	219	177	139	098	056	012	000	000	000	000	000	000	000	000
15	.25	.25	.23	.22	.20	.18	.16	.13	.10	.08	.05	.01	.00	.00	.00	.00	.00	.00	.00	.00
	357	347	331	311	286	258	226	184	146	105	063	019	000	000	000	000	000	000	000	000
30	.26	.25	.24	.23	.21	.19	.17	.14	.11	.08	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00
	365	355	339	319	294	266	234	192	154	114	071	027	000	000	000	000	000	000	000	000
45	.26	.25	.23	.22	.20	.17	.14	.12	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00
	374	365	348	328	303	275	243	201	163	123	080	037	000	000	000	000	000	000	000	000

JAN-APR 80 S TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M^2*2.)

... SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY -

PREVIOUS PAGE
IS BLANK

MST	JAN					FEB					MAR					APR						
	1	5	10	15	20	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30
0300	.27	.27	.25	.24	.22	.20	.18	.15	.12	.10	.07	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	384	374	358	338	313	285	253	211	173	133	90	57	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.28	.27	.26	.25	.23	.21	.19	.16	.13	.10	.07	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	395	385	369	348	324	295	264	222	184	143	101	57	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.29	.28	.27	.25	.24	.22	.20	.17	.14	.11	.08	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	406	396	380	359	335	307	275	233	195	155	113	69	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45	.30	.29	.28	.26	.25	.23	.20	.17	.15	.12	.09	.06	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00
	418	408	392	371	347	319	287	245	207	167	125	81	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
0400	.30	.30	.29	.27	.25	.23	.21	.18	.16	.13	.10	.07	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00
	431	421	404	384	359	331	299	257	219	179	137	94	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.31	.31	.30	.28	.26	.24	.22	.19	.17	.14	.11	.08	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00
	444	434	417	397	372	344	312	270	233	193	151	107	.036	.000	.000	.000	.000	.000	.000	.000	.000	.000
30	.32	.32	.30	.29	.27	.25	.23	.20	.18	.15	.12	.09	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00
	457	447	431	410	386	357	326	284	246	206	164	121	.050	.004	.000	.000	.000	.000	.000	.000	.000	.000
45	.33	.33	.31	.30	.28	.26	.24	.21	.19	.16	.13	.10	.05	.01	.00	.00	.00	.00	.00	.00	.00	.00
	471	451	444	424	399	371	340	298	260	220	179	135	.064	.019	.000	.000	.000	.000	.000	.000	.000	.000
0500	.34	.34	.32	.31	.29	.27	.25	.22	.20	.17	.14	.11	.06	.02	.00	.00	.00	.00	.00	.00	.00	.00
	485	475	458	438	414	386	354	312	275	235	193	150	.079	.033	.000	.000	.000	.000	.000	.000	.000	.000
15	.35	.35	.33	.32	.30	.28	.26	.23	.21	.18	.15	.12	.07	.04	.00	.00	.00	.00	.00	.00	.00	.00
	499	489	473	452	428	400	369	327	290	250	208	165	.094	.049	.003	.000	.000	.000	.000	.000	.000	.000
30	.36	.36	.34	.33	.31	.29	.27	.24	.22	.19	.16	.13	.03	.05	.01	.00	.00	.00	.00	.00	.00	.00
	514	504	487	467	443	415	384	342	305	265	223	180	.109	.064	.018	.000	.000	.000	.000	.000	.000	.000
45	.37	.37	.36	.34	.32	.30	.28	.25	.23	.20	.17	.14	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00
	528	518	502	482	458	430	399	357	320	280	239	196	.125	.080	.034	.000	.000	.000	.000	.000	.000	.000

JAN-APR 80 S TABLE B-1 SOLAR PARAMETERS

COS Z X0 (W/M**2.)

*** SIGNIFIES COS Z = 1.

ADD 1000 TO VALUES PRECEDED BY *

MST	1	5	10	15	20	25	30	DATE						APR									
								JAN			FEB			MAR			5			15			
0600	.38	.37	.35	.33	.32	.29		.27	.24	.21	.18	.15		.10	.07	.04	.00	.00	.00		.00	.00	.00
543	533	517	497	473	445	414		373	335	296	254	211		140	.095	.050	.004	.000	.000		.000	.000	.000
15	.39	.38	.36	.35	.33	.30		.28	.25	.22	.19	.16		.11	.08	.05	.01	.00	.00		.00	.00	.00
558	548	532	512	488	460	429		388	351	311	270	227		156	.111	.065	.020	.000	.000		.000	.000	.000
30	.41	.40	.39	.37	.36	.34	.32	.29	.26	.23	.20	.17		.12	.09	.06	.03	.00	.00		.00	.00	.00
573	563	547	527	503	475	444		403	366	327	286	243		172	.127	.081	.036	.000	.000		.000	.000	.000
45	.42	.41	.40	.38	.37	.35	.33	.30	.27	.24	.22	.19		.14	.10	.07	.04	.00	.00		.00	.00	.00
587	578	562	542	518	490	460		419	382	342	301	258		187	.142	.097	.051	.006	.000		.000	.000	.000
0700	.43	.42	.41	.39	.38	.36	.34	.31	.28	.26	.23	.20		.15	.11	.08	.05	.02	.00		.00	.00	.00
602	592	576	556	533	505	475		434	397	358	317	274		203	.158	.112	.066	.021	.000		.000	.000	.000
15	.44	.43	.42	.40	.39	.37	.35	.32	.29	.27	.24	.21		.16	.13	.09	.06	.03	.00		.00	.00	.00
616	606	591	571	547	520	489		449	412	373	332	289		218	.173	.127	.082	.036	.000		.000	.000	.000
30	.45	.44	.43	.41	.40	.38	.36	.33	.30	.28	.25	.22		.17	.14	.10	.07	.04	.00		.00	.00	.00
630	620	605	585	562	534	504		463	427	388	347	304		233	.138	.142	.097	.051	.006		.000	.000	.000
45	.46	.45	.44	.42	.41	.39	.37	.34	.31	.29	.26	.23		.18	.15	.11	.08	.05	.02		.00	.00	.00
644	634	619	599	576	549	518		478	441	402	361	319		248	.203	.157	.111	.065	.020		.000	.000	.000
0800	.46	.46	.45	.43	.42	.40	.38	.35	.32	.30	.27	.24		.19	.16	.12	.09	.06	.03		.00	.00	.00
657	647	632	612	589	562	532		492	455	416	375	333		262	.217	.171	.125	.079	.034		.000	.000	.000
15	.47	.47	.46	.44	.43	.41	.39	.36	.33	.31	.28	.25		.20	.17	.13	.10	.07	.04		.00	.00	.00
669	660	645	625	602	576	545		505	469	430	389	347		276	.230	.165	.139	.093	.048		.000	.000	.000
30	.48	.48	.46	.45	.44	.42	.40	.37	.34	.32	.29	.26		.21	.18	.14	.11	.08	.04		.01	.00	.00
682	672	657	638	615	588	558		518	482	443	402	350		289	.244	.198	.152	.106	.061		.007	.003	.000
45	.49	.48	.47	.46	.44	.43	.41	.38	.35	.33	.30	.27		.22	.19	.15	.12	.09	.05		.01	.00	.00
693	684	669	650	627	600	571		531	494	456	415	372		302	.256	.210	.164	.118	.073		.019	.003	.000

JAN-APR 80 S TABLE 8-1 SOLAR PARAMETERS CGS Z X0 (W/M**2.) ADD 1000 TO VALUES PRECEDED BY .
 ** SIGNIFIES COS Z =1.

MST	DATE										APR									
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
0900 .50 .49 .48 .47 .45 .43 .41	.39 .36 .33 .31	.28	.23 .13 .16 .13 .09 .06	.02 .00 .00 .00 .00 .00	.031 .003 .000 .000 .000 .000															
704 695 680 661 638 612 582	543 506 468 427	385	314 268 222 176 130 084																	
15 .51 .50 .49 .48 .46 .44 .42	.39 .37 .34 .31	.28	.23 .20 .17 .14 .10 .07	.03 .00 .00 .00 .00 .00	.041 .003 .000 .000 .000 .000															
714 705 691 672 649 623 593	554 518 479 438	336	325 280 233 187 141 095																	
30 .51 .51 .50 .49 .47 .45 .43	.40 .38 .35 .32	.29	.24 .21 .18 .14 .11 .08	.04 .01 .00 .00 .00 .00	.051 .003 .000 .000 .000 .000															
724 715 700 682 659 633 604	564 528 490 449	407	336 290 244 198 151 105																	
45 .52 .51 .50 .49 .47 .46 .44	.41 .38 .36 .33	.30	.25 .22 .18 .15 .12 .08	.04 .01 .00 .00 .00 .00	.061 .017 .000 .000 .000 .000															
733 724 710 691 669 643 613	574 538 499 459	416	345 300 254 207 161 115																	
1000 .52 .52 .51 .49 .48 .46 .44	.41 .39 .36 .33	.30	.26 .22 .19 .16 .12 .09	.05 .02 .00 .00 .00 .00																
741 732 718 699 677 651 622	583 547 508 468	425	354 309 262 216 169 123																	
15 .53 .52 .51 .50 .49 .47 .45	.42 .40 .37 .34	.31	.26 .23 .20 .16 .13 .10	.06 .02 .00 .00 .00 .00																
748 739 725 707 685 659 630	591 555 517 476	434	363 317 270 224 177 131																	
30 .53 .53 .52 .51 .49 .47 .45	.43 .40 .37 .35	.32	.27 .23 .20 .17 .13 .10	.06 .03 .00 .00 .00 .00																
754 746 732 714 692 666 637	598 562 524 483	441	370 324 277 231 184 138																	
45 .54 .53 .52 .51 .49 .48 .46	.43 .40 .38 .35	.32	.27 .24 .21 .17 .14 .10	.07 .03 .00 .00 .00 .00																
760 751 737 720 698 672 643	604 569 530 490	447	376 330 284 237 190 143																	
1100 .54 .53 .52 .51 .50 .48 .46	.43 .41 .38 .35	.32	.27 .24 .21 .18 .14 .11	.07 .04 .00 .00 .00 .00																
764 756 742 724 703 677 648	610 574 536 495	453	381 335 289 242 195 148																	
15 .54 .54 .53 .52 .50 .48 .46	.44 .41 .39 .36	.33	.23 .25 .21 .18 .14 .11	.07 .01 .01 .00 .00 .00																
768 760 746 728 707 682 653	614 578 540 500	457	386 340 293 246 199 152																	
30 .54 .54 .53 .52 .50 .49 .47	.44 .41 .39 .36	.33	.28 .25 .21 .18 .15 .11	.07 .01 .01 .00 .00 .00																
770 762 749 731 710 685 656	617 582 544 503	461	389 343 296 249 202 155																	
45 .55 .54 .53 .52 .50 .49 .47	.44 .42 .39 .36	.33	.28 .25 .22 .18 .15 .11	.07 .04 .01 .00 .00 .00																
772 764 751 733 712 687 658	620 584 546 506	463	392 345 298 251 204 157																	

JAN-APR 80 S

TABLE B-1 SOLAR PARAMETERS $\cos^2(x_0 \text{ (W/M²)})$

*** SIGNIFIES $\cos^2 z^{+1}$.
ADD 1000 TO VALUES PRECEDED BY *

MST	DATE										APR												
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30				
1200	.55	.54	.53	.52	.51	.49	.47	.44	.42	.39	.36	.33	.26	.25	.22	.18	.15	.12	.08	.04	.01	.00	.00
	773	765	752	735	713	688	660	621	586	548	507	464	393	347	300	252	205	158	102	057	014	000	000
15	.55	.54	.53	.52	.51	.49	.47	.44	.42	.39	.36	.33	.26	.25	.22	.18	.15	.12	.07	.04	.01	.00	.00
	772	765	752	735	714	689	660	622	586	548	507	465	393	347	300	252	205	157	102	057	013	000	000
30	.55	.54	.53	.52	.50	.49	.47	.44	.42	.39	.36	.33	.23	.25	.22	.18	.15	.11	.07	.04	.01	.00	.00
	771	764	751	734	713	688	660	621	586	548	507	464	392	346	299	251	204	156	101	055	012	000	000
45	.54	.53	.52	.50	.49	.47	.44	.42	.39	.36	.33	.23	.25	.21	.18	.15	.11	.07	.04	.01	.00	.00	
	769	762	749	732	711	686	658	620	584	546	505	463	391	344	297	249	201	154	998	053	039	000	000
1300	.54	.53	.52	.50	.48	.47	.44	.41	.39	.36	.33	.26	.25	.21	.18	.14	.11	.07	.04	.00	.00	.00	
	766	759	746	729	708	684	655	617	582	543	503	460	388	341	294	246	198	151	995	049	026	000	000
15	.54	.53	.52	.51	.50	.48	.46	.44	.41	.39	.36	.33	.28	.24	.21	.18	.14	.11	.07	.03	.00	.00	.00
	762	755	742	725	705	680	652	613	578	540	499	456	384	337	290	242	194	147	991	045	031	000	000
30	.54	.53	.52	.51	.50	.48	.46	.43	.41	.38	.35	.32	.27	.24	.21	.17	.14	.10	.06	.03	.00	.00	.00
	757	750	737	721	700	675	647	609	573	535	495	452	379	333	285	237	189	141	985	043	020	000	000
45	.53	.52	.51	.49	.47	.46	.43	.40	.38	.35	.32	.27	.24	.20	.17	.13	.10	.06	.03	.00	.00	.00	
	751	744	732	715	694	670	642	603	568	530	489	446	374	327	279	231	183	135	979	034	000	000	000
1400	.53	.52	.51	.50	.49	.47	.45	.42	.40	.37	.35	.32	.26	.23	.20	.16	.13	.09	.05	.02	.00	.00	.00
	744	737	725	708	688	663	635	597	562	523	462	439	367	320	272	224	176	128	972	026	000	000	000
15	.52	.52	.51	.50	.48	.47	.45	.42	.39	.37	.34	.31	.26	.25	.19	.16	.12	.09	.05	.01	.00	.00	.00
	736	730	717	701	681	656	628	590	554	516	475	432	355	312	265	216	168	120	964	019	000	000	000
30	.51	.50	.49	.48	.46	.44	.41	.39	.36	.33	.30	.25	.22	.19	.15	.12	.08	.04	.01	.00	.00	.00	
	728	721	709	693	672	648	620	581	546	508	467	424	351	304	256	208	159	112	955	009	000	000	000
45	.51	.50	.49	.48	.47	.45	.43	.41	.38	.36	.33	.30	.25	.21	.18	.14	.11	.07	.03	.00	.00	.00	
	719	712	700	684	663	639	611	572	537	499	458	414	342	294	247	198	150	102	945	033	000	000	000

JAN-APR 80 S

TABLE B-1

SOLAR PARAMETERS

COS Z

X0 (W/m**2.)

*** SIGNIFIES COS Z = 1.

ADD 1000 TO VALUES PRECEDED BY *

MST	1	5	10	15	20	25	30	FEB						MAR						APR					
								5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30	
1500	.50	.50	.49	.48	.46	.45	.43	.40	.38	.35	.32	.29	.24	.21	.17	.14	.10	.07	.03	.00	.00	.00	.00	.00	
709	702	690	674	651	629	601	563	527	489	448	404	332	284	236	188	139	992	035	003	000	000	000	000		
15	.49	.49	.48	.47	.47	.46	.44	.42	.39	.37	.34	.31	.28	.23	.20	.16	.13	.09	.06	.02	.03	.00	.00	.00	
698	692	680	663	643	619	591	552	517	478	437	394	321	273	225	177	128	80	024	003	000	000	000	000		
30	.49	.48	.47	.46	.45	.43	.41	.38	.36	.33	.30	.27	.22	.19	.15	.12	.09	.05	.01	.03	.00	.00	.00	.00	
687	680	668	652	632	607	579	541	505	467	425	392	301	262	214	165	117	69	012	003	000	000	000	000		
45	.48	.47	.46	.45	.44	.42	.40	.38	.35	.32	.30	.27	.21	.18	.15	.11	.08	.04	.00	.03	.00	.00	.00	.00	
675	669	657	640	620	596	567	529	493	455	413	370	297	249	201	153	104	56	000	003	000	000	000	000		
1600	.47	.46	.46	.44	.43	.41	.39	.37	.34	.32	.29	.26	.20	.17	.14	.10	.07	.03	.00	.03	.00	.00	.00	.00	
662	656	644	628	608	583	555	516	481	442	401	357	284	236	188	140	91	043	000	003	000	000	000	000		
15	.46	.45	.45	.44	.42	.40	.38	.36	.33	.31	.28	.25	.19	.16	.13	.09	.06	.02	.00	.03	.00	.00	.00	.00	
650	643	631	615	595	570	542	503	467	429	387	344	270	223	175	126	77	029	000	003	000	000	000	000		
30	.45	.45	.44	.43	.41	.39	.38	.35	.32	.30	.27	.24	.18	.15	.12	.08	.05	.01	.00	.03	.00	.00	.00	.00	
636	630	618	602	581	557	528	490	454	415	374	330	256	203	161	112	663	015	000	003	000	000	000	000		
45	.44	.44	.43	.42	.40	.38	.37	.34	.31	.29	.26	.23	.17	.14	.11	.07	.04	.00	.00	.03	.00	.00	.00	.00	
622	616	604	588	567	543	515	476	440	401	359	316	242	194	146	97	049	001	000	003	000	000	000	000		
1700	.43	.43	.42	.41	.39	.37	.36	.33	.30	.28	.25	.22	.16	.13	.10	.06	.03	.00	.00	.03	.00	.00	.00	.00	
608	602	590	574	553	529	500	461	425	386	345	301	227	183	131	83	34	000	000	003	000	000	000	000		
15	.42	.42	.41	.40	.38	.36	.34	.32	.29	.27	.24	.21	.15	.12	.08	.05	.01	.00	.03	.00	.00	.00	.00	.00	
594	588	576	559	539	514	486	447	410	371	330	296	212	164	116	667	019	000	000	003	000	000	000	000		
30	.41	.41	.40	.39	.37	.35	.33	.31	.28	.25	.23	.19	.14	.11	.07	.04	.00	.00	.03	.00	.00	.00	.00		
579	573	561	545	524	499	471	432	395	356	315	271	197	149	101	562	004	000	000	003	000	000	000	000		
45	.40	.39	.39	.38	.36	.34	.32	.30	.27	.24	.21	.18	.13	.10	.06	.03	.00	.00	.03	.00	.00	.00	.00		
565	558	546	530	509	484	456	416	380	341	299	255	181	134	885	037	000	000	000	003	000	000	000	000		

JAN-APR 80 S TABLE B-1 SOLAR PARAMETERS COS Z X0 (W/M**2)

*** SIGNIFIES COS 2 *1.
ADD 1000 TO VALUES PRECEDED BY *

MST	DATE										DATE									
	1	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	
1800	.39	.38	.38	.36	.35	.33	.31	.29	.26	.23	.20	.17	.12	.09	.05	.02	.00	.00	.00	.00
550	543	531	515	494	469	440	401	365	325	284	240	166	118	069	021	000	000	000	000	000
15	.38	.37	.37	.35	.34	.32	.30	.27	.25	.22	.19	.16	.11	.07	.04	.00	.00	.00	.00	.00
535	529	516	500	479	454	425	386	349	319	268	224	150	102	054	005	000	000	000	000	000
30	.37	.36	.35	.34	.33	.31	.29	.26	.24	.21	.18	.15	.10	.06	.03	.00	.00	.00	.00	.00
520	514	502	485	464	439	410	370	334	294	252	208	134	086	038	000	000	000	000	000	000
45	.36	.35	.34	.33	.32	.30	.28	.25	.23	.20	.17	.14	.09	.05	.02	.00	.00	.00	.00	.00
506	499	487	470	449	424	395	355	318	279	237	193	119	071	022	000	000	000	000	000	000
1900	.35	.34	.33	.32	.31	.29	.27	.24	.22	.19	.16	.13	.07	.04	.01	.00	.00	.00	.00	.00
491	485	472	455	434	409	383	340	303	264	222	177	103	055	007	000	000	000	000	000	000
15	.34	.33	.32	.31	.30	.28	.26	.23	.21	.16	.15	.12	.06	.03	.00	.00	.00	.00	.00	.00
477	470	458	441	420	394	365	325	288	249	206	162	088	040	000	000	000	000	000	000	000
30	.33	.32	.31	.30	.29	.27	.25	.22	.20	.17	.14	.11	.05	.02	.00	.00	.00	.00	.00	.00
463	456	444	427	405	380	350	310	273	234	191	147	073	025	000	000	000	000	000	000	000
45	.32	.31	.30	.29	.28	.26	.24	.21	.18	.16	.13	.10	.04	.01	.00	.00	.00	.00	.00	.00
450	443	430	413	391	366	336	296	259	219	177	132	059	011	000	000	000	000	000	000	000
2000	.31	.30	.29	.28	.27	.25	.23	.20	.17	.15	.12	.09	.03	.00	.00	.00	.00	.00	.00	.00
436	429	417	399	378	352	322	282	245	205	163	118	044	000	000	000	000	000	000	000	000
15	.30	.29	.29	.27	.26	.24	.22	.19	.17	.14	.11	.08	.02	.00	.00	.00	.00	.00	.00	.00
424	417	404	386	365	339	309	269	231	191	149	104	030	000	000	000	000	000	000	000	000
30	.29	.28	.28	.26	.25	.23	.21	.18	.16	.13	.10	.07	.01	.00	.00	.00	.00	.00	.00	.00
412	404	391	374	352	326	296	256	218	178	136	091	017	000	000	000	000	000	000	000	000
45	.28	.28	.27	.26	.24	.22	.20	.17	.15	.12	.09	.06	.00	.00	.00	.00	.00	.00	.00	.00
400	393	380	362	340	314	284	243	206	166	123	079	004	000	000	000	000	000	000	000	000

JAN-APR 80 S

TABLE B-1 SOLAR PARAMETERS

$\cos Z$
 X_0 (W/M²•2.)

... SIGNIFIES $\cos Z^{-1}$.

ADD 1000 TO VALUES PRECEDED BY .

MST	JAN					FEB					DATE					APR				
	1	5	10	15	20	25	30	5	10	15	20	25	5	10	15	20	25	30		
2100	.28	.27	.26	.25	.23	.21	.19	.16	.14	.11	.08	.05	.00	.00	.00	.00	.00	.00	.00	.00
	389	382	368	351	328	302	272	231	194	154	111	067	.003	.000	.000	.000	.000	.000	.000	.000
15	.27	.26	.25	.24	.23	.21	.19	.16	.13	.10	.07	.04	.00	.00	.00	.00	.00	.00	.00	.00
	379	371	358	340	318	291	261	220	183	142	100	055	.000	.000	.000	.000	.000	.000	.000	.000
30	.26	.26	.25	.23	.22	.20	.18	.15	.12	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00
	369	362	348	330	307	281	251	210	172	132	089	045	.009	.003	.000	.000	.000	.000	.000	.000
45	.26	.25	.24	.23	.21	.19	.17	.14	.12	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00
	360	353	339	321	298	272	241	200	162	122	079	035	.000	.030	.003	.000	.000	.000	.000	.000
2200	.25	.24	.23	.22	.21	.19	.17	.14	.11	.08	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00
	352	345	331	312	290	263	232	191	153	113	070	026	.000	.000	.000	.000	.000	.000	.000	.000
15	.24	.24	.23	.22	.20	.18	.16	.13	.10	.08	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00
	345	337	323	305	282	255	224	183	145	105	062	017	.009	.000	.000	.000	.000	.000	.000	.000
30	.24	.23	.22	.21	.20	.18	.15	.13	.10	.07	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00
	339	331	317	298	275	248	217	176	138	097	055	010	.000	.000	.000	.000	.000	.000	.000	.000
45	.24	.23	.22	.21	.19	.17	.15	.12	.09	.07	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00
	333	325	311	292	269	242	211	170	132	091	048	004	.000	.000	.000	.000	.000	.000	.000	.000
2300	.23	.23	.22	.20	.19	.17	.15	.12	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00
	329	321	306	287	264	237	206	164	126	086	043	000	.000	.000	.000	.000	.000	.000	.000	.000
15	.23	.22	.21	.20	.18	.17	.14	.11	.09	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00
	325	317	302	283	260	233	202	160	122	081	038	000	.000	.000	.000	.000	.000	.000	.000	.000
30	.23	.22	.21	.20	.18	.16	.14	.11	.08	.06	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00
	323	314	300	280	257	229	198	156	118	078	035	000	.000	.000	.000	.000	.000	.000	.000	.000
45	.23	.22	.21	.20	.18	.16	.14	.11	.08	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00
	321	312	298	278	255	227	196	154	116	075	032	000	.000	.000	.000	.000	.000	.000	.000	.000

JAN-APR 80 S TABLE B-1

SOLAR PARAMETERS $\cos^2 \chi_{0 (W/M=+2)}$ ** SIGNIFIES $\cos^2 \chi_1$.
ADD 1000 TO VALUES PRECEDED BY *

MST	MAY					JUN					DATE					AUG					
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25
1000 .00 .00 .00 .00 .00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15 .00 .00 .00 .00 .00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30 .00 .00 .00 .00 .00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45 .00 .00 .00 .00 .00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1100 .00 .00 .00 .00 .00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15 .00 .00 .00 .00 .00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30 .00 .00 .00 .00 .00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45 .00 .00 .00 .00 .00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1200 .00 .00 .00 .00 .00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15 .00 .00 .00 .00 .00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30 .00 .00 .00 .00 .00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
45 .00 .00 .00 .00 .00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

MAY-AUG 80 S TABLE B-1 SOLAR PARAMETERS COS Z
XO (W/M**2.)

** SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

NST	MAY					JUN					JUL					AUG							
	5	10	15	20	30	5	10	15	20	30	5	10	15	20	25	30	5	10	15	20	25	30	
1300 .00 .00 .00 .00 .00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
000 .000 .000 .000 .000 .000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
15 .00 .00 .00 .00 .00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
000 .000 .000 .000 .000 .000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
30 .00 .00 .00 .00 .00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
000 .000 .000 .000 .000 .000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	
45 .00 .00 .00 .00 .00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
000 .000 .000 .000 .000 .000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	

MAY-AUG 80 S TABLE B-1 SOLAR PARAMETERS $\cos^2 \chi_0$ ($w/m^2 \cdot s^2$) *** SIGNIFIES $\cos^2 \chi$.
 ADD 1000 TO VALUES PRECEDED BY .

MST	SEP					OCT					NOV					DEC						
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	
0000	.00	.00	.00	.00	.00	.00	.00	.00	.03	.06	.03	.12	.14	.17	.20	.21	.22	.23	.23	.23	.23	
0000	.00	.00	.00	.00	.00	.00	.00	.01	.044	.055	.00	.132	.168	.201	.232	.258	.281	.299	.314	.323	.328	.324
15	.00	.00	.00	.00	.00	.00	.00	.00	.03	.06	.10	.12	.15	.17	.19	.20	.21	.22	.23	.23	.23	.23
30	.00	.00	.00	.00	.00	.00	.00	.00	.03	.06	.10	.12	.15	.17	.19	.20	.21	.22	.23	.23	.23	.23
45	.00	.00	.00	.00	.00	.00	.00	.01	.04	.07	.10	.13	.15	.17	.19	.20	.22	.24	.24	.24	.24	.23
0100	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.07	.10	.13	.15	.17	.19	.21	.22	.23	.24	.24	.23
0100	.00	.00	.00	.00	.00	.00	.00	.00	.013	.056	.097	.144	.180	.213	.243	.269	.291	.309	.323	.337	.335	.331
15	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.07	.11	.13	.16	.18	.20	.21	.22	.23	.24	.24	.24
30	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.08	.11	.14	.16	.18	.20	.22	.23	.24	.25	.24	.24
45	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.08	.12	.19	.22	.25	.28	.302	.320	.333	.346	.340	.340
0200	.00	.00	.00	.00	.00	.00	.00	.00	.03	.06	.09	.12	.15	.17	.19	.21	.23	.24	.25	.25	.25	.25
0200	.00	.00	.00	.00	.00	.00	.00	.00	.040	.063	.125	.171	.207	.240	.269	.295	.317	.334	.347	.359	.353	.353
15	.00	.00	.00	.00	.00	.00	.00	.00	.04	.07	.10	.13	.15	.16	.18	.20	.22	.23	.24	.24	.26	.26
30	.00	.00	.00	.00	.00	.00	.00	.00	.049	.092	.134	.180	.216	.249	.278	.304	.325	.342	.353	.364	.366	.361
45	.00	.00	.00	.00	.00	.00	.00	.01	.04	.07	.10	.14	.16	.18	.21	.22	.24	.25	.26	.27	.26	.26
0005	.00	.00	.00	.00	.00	.00	.00	.00	.014	.059	.102	.190	.226	.258	.297	.313	.334	.352	.364	.373	.376	.369
200	.00	.00	.00	.00	.00	.00	.00	.00	.05	.08	.11	.14	.17	.19	.21	.23	.24	.26	.27	.27	.27	.27
200	.00	.00	.00	.00	.00	.00	.00	.00	.073	.113	.154	.206	.269	.298	.323	.344	.361	.374	.382	.386	.384	.378

TABLE B-1 SOLAR PARAMETERS COS Z *1.
X0 (W/W**2.) ADD 1000 TO VALUES PRECEDED BY .

MST	SEP					OCT					NOV					DEC								
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30		
0300	.00	.00	.00	.00	.00	.00	.00	.03	.06	.12	.15	.18	.20	.22	.24	.25	.26	.27	.28	.28	.27			
	000	000	000	000	000	000	000	036	081	124	165	212	247	280	309	334	355	372	380	386	384	388		
15	.00	.00	.00	.00	.00	.00	.00	.04	.07	.10	.13	.16	.19	.21	.23	.25	.26	.27	.27	.29	.29	.28		
	000	003	000	003	000	000	000	046	093	136	177	220	253	291	320	345	366	383	399	407	405	399		
30	.00	.00	.00	.00	.00	.00	.00	.01	.04	.08	.11	.14	.17	.19	.22	.24	.25	.27	.28	.28	.29	.29		
	000	000	000	000	000	000	000	015	061	106	149	190	230	271	304	332	357	378	395	407	418	417	410	
45	.00	.00	.00	.00	.00	.00	.00	.02	.05	.09	.12	.15	.18	.20	.23	.25	.26	.28	.29	.30	.30	.30		
	000	000	000	000	000	000	000	028	074	119	162	203	245	284	316	345	370	391	407	422	429	422		
0400	.00	.00	.00	.00	.00	.00	.00	.03	.06	.10	.13	.16	.19	.21	.24	.26	.27	.29	.30	.31	.31	.31		
	000	000	000	000	000	000	000	042	088	132	175	216	262	298	350	358	383	404	420	432	440	441	435	
15	.00	.00	.00	.00	.00	.00	.00	.01	.04	.07	.11	.14	.17	.20	.22	.25	.27	.30	.31	.32	.32	.32		
	000	000	000	000	000	000	000	056	102	147	190	230	276	312	343	372	397	417	434	445	453	456	448	
30	.00	.00	.00	.00	.00	.00	.00	.02	.05	.08	.12	.15	.18	.21	.23	.26	.28	.31	.32	.33	.33	.33		
	000	000	000	000	000	000	000	070	116	161	204	245	291	326	358	386	411	431	447	452	467	469	463	461
45	.00	.00	.00	.00	.00	.00	.00	.03	.06	.10	.13	.16	.19	.22	.24	.27	.29	.32	.33	.34	.34	.34		
	000	000	000	000	000	000	000	085	131	176	219	260	305	340	372	400	425	445	461	473	481	475		
0500	.00	.00	.00	.00	.00	.01	.04	.07	.11	.14	.17	.20	.23	.25	.28	.30	.31	.33	.34	.35	.35	.35		
	000	000	000	000	000	000	006	054	100	146	191	231	275	320	355	387	415	439	460	476	483	497	496	489
15	.00	.00	.00	.00	.00	.02	.05	.08	.12	.15	.18	.21	.24	.27	.29	.31	.32	.34	.35	.35	.36	.36	.36	
	000	000	000	000	000	000	021	069	116	162	206	249	290	335	370	402	430	454	474	490	502	509	512	503
30	.00	.00	.00	.00	.00	.03	.06	.10	.13	.16	.19	.22	.25	.28	.32	.33	.35	.36	.36	.37	.37	.37	.37	
	000	000	000	000	000	000	037	084	131	177	222	264	305	351	385	417	445	469	489	505	517	524	518	
45	.00	.00	.00	.00	.00	.04	.07	.11	.14	.17	.20	.23	.26	.29	.31	.33	.34	.36	.37	.38	.38	.38		
	000	000	000	000	000	005	052	100	147	193	237	280	320	360	400	432	460	484	504	520	531	543	539	533

TABLE B-1 SOLAR PARAMETERS COS Σ AG ($A_{\text{IR}} \cdot 2^{\text{nd}}$)
SEP-DEC 80 S ADD 1000 TO VALUES PRECEDED BY +

++ SIGNIFIES COS 2^{nd}

ADD 1000 TO VALUES PRECEDED BY +

MST	SEP					OCT					NOV					DEC							
	5	10	15	20	30	5	10	15	20	25	5	10	15	20	25	30	5	10	15	20	25	30	
0600	.00	.00	.00	.02	.05	.08	.12	.15	.18	.21	.24	.27	.30	.32	.34	.36	.37	.38	.39	.39	.39	.39	
	000	000	000	000	020	058	115	162	208	253	295	336	381	416	447	475	499	519	535	545	553	556	548
15	.00	.00	.00	.03	.06	.10	.13	.15	.19	.22	.25	.28	.31	.23	.35	.37	.38	.39	.40	.40	.40	.40	
	000	000	000	000	036	083	131	178	223	268	311	351	391	431	462	490	514	534	549	561	571	569	562
30	.00	.00	.00	.04	.07	.11	.14	.17	.21	.24	.26	.30	.32	.34	.36	.38	.39	.40	.41	.41	.41	.41	
	000	000	000	004	051	099	146	193	239	283	326	356	411	426	477	505	529	548	564	575	583	577	
45	.00	.00	.01	.05	.08	.12	.15	.18	.22	.25	.27	.31	.33	.35	.37	.39	.40	.41	.42	.42	.42	.42	
	000	000	000	019	066	114	161	208	254	298	341	361	426	461	492	519	543	563	579	593	597	598	592
0700	.00	.00	.03	.06	.09	.13	.16	.20	.23	.26	.29	.32	.34	.36	.38	.40	.41	.42	.43	.43	.43	.43	
	000	000	003	034	081	129	176	223	269	313	356	396	441	475	506	534	557	577	593	601	612	614	606
15	.00	.00	.00	.04	.07	.11	.14	.17	.21	.24	.27	.30	.33	.35	.37	.39	.41	.42	.43	.43	.44	.44	
	000	000	001	048	096	144	191	238	283	328	370	410	455	484	520	548	572	591	607	613	621	623	620
30	.00	.00	.01	.05	.08	.12	.15	.18	.22	.25	.28	.31	.32	.35	.36	.38	.40	.42	.43	.44	.45	.45	
	000	000	016	063	110	158	205	252	297	342	384	424	462	500	534	562	595	605	621	642	640	634	
45	.00	.00	.02	.06	.10	.13	.16	.19	.23	.26	.29	.32	.35	.37	.39	.41	.43	.44	.45	.45	.45	.45	
	000	000	030	077	124	172	215	266	311	355	393	438	482	516	557	575	599	618	634	641	651	655	648
0800	.00	.00	.03	.07	.10	.14	.17	.20	.24	.27	.30	.32	.36	.39	.42	.44	.45	.46	.47	.47	.47	.47	
	000	000	013	090	137	185	232	279	324	368	411	451	493	521	550	588	611	631	647	651	668	667	661
15	.00	.01	.04	.08	.11	.15	.18	.21	.24	.28	.31	.33	.36	.39	.42	.43	.44	.46	.47	.44	.48	.48	
	000	010	056	103	150	198	245	291	337	381	423	463	506	531	572	600	624	643	659	671	681	679	673
30	.00	.02	.05	.09	.12	.15	.19	.22	.25	.28	.31	.34	.37	.40	.42	.44	.45	.47	.48	.44	.49	.43	
	000	022	068	115	162	210	257	304	345	393	435	475	511	543	581	612	635	655	671	691	693	686	
45	.00	.03	.06	.09	.13	.16	.20	.23	.26	.29	.32	.35	.38	.41	.44	.46	.47	.48	.49	.50	.49	.49	
	000	034	080	127	174	221	269	315	363	404	446	486	531	564	595	633	666	697	682	691	704	703	697

TABLE 8-1 SCALAR PARAMETERS COS Z
XG (W/M**2.)

... SIGNIFIES COS Z
... 100 TO VALUES PRECEDED BY .

SEP-DEC	30 S	TABLE B-1	SOLAR PARAMETERS												DATE	SEC
			5	10	15	20	25	30	5	10	15	20	25	30		
0900	.00 .03 .07 .10 .14 .17		.20 .24 .27 .30 .33 .36	.31 .34 .37 .40 .43 .46	.40 .42 .44 .46 .47 .49	.49 .50 .53 .51 .50 .50										
0900	.00 .045 .091 .138 .185 .232		.279 .326 .371 .415 .457 .496	.541 .575 .606 .633 .657 .676	.551 .584 .615 .642 .666 .686	.692 .730 .771 .715 .713 .708										
15	.01 .04 .08 .11 .14 .18		.21 .24 .26 .31 .34 .36	.31 .34 .37 .40 .43 .46	.40 .42 .44 .46 .47 .49	.50 .51 .51 .51 .51 .51										
15	.010 .055 .101 .148 .195 .242		.289 .336 .381 .424 .466 .506	.551 .584 .615 .642 .666 .686	.551 .584 .615 .642 .666 .686	.702 .741 .725 .724 .718										
30	.01 .05 .08 .12 .15 .18		.22 .25 .28 .31 .34 .37	.31 .34 .37 .40 .43 .46	.40 .42 .45 .46 .48 .49	.50 .51 .52 .52 .52 .51										
30	.020 .064 .111 .157 .204 .252		.299 .345 .390 .433 .475 .515	.551 .584 .615 .642 .675 .695	.551 .584 .615 .642 .675 .695	.711 .721 .730 .734 .733 .728										
45	.02 .05 .09 .12 .16 .19		.22 .26 .29 .32 .35 .38	.31 .34 .37 .40 .43 .46	.40 .43 .46 .47 .49 .50	.51 .52 .52 .53 .52 .52										
45	.028 .073 .119 .166 .213 .260		.367 .353 .398 .442 .483 .523	.567 .601 .632 .659 .683 .703	.567 .601 .632 .659 .683 .703	.719 .731 .739 .742 .741 .736										
1000	.03 .06 .09 .13 .16 .20		.23 .26 .29 .33 .35 .38	.31 .34 .37 .40 .43 .46	.41 .44 .46 .48 .49 .50	.52 .52 .53 .53 .53 .53										
1000	.036 .081 .127 .174 .221 .268		.314 .360 .405 .449 .491 .530	.574 .608 .639 .666 .690 .710	.574 .608 .639 .666 .690 .710	.726 .733 .744 .750 .749 .744										
15	.03 .07 .10 .13 .17 .20		.23 .27 .30 .33 .36 .39	.31 .34 .37 .40 .43 .46	.42 .44 .46 .48 .50 .51	.52 .53 .53 .54 .53 .53										
15	.043 .088 .134 .181 .227 .274		.321 .367 .412 .455 .497 .536	.581 .615 .645 .673 .697 .717	.581 .615 .645 .673 .697 .717	.733 .745 .753 .757 .756 .751										
30	.04 .07 .10 .14 .17 .21		.24 .27 .30 .33 .36 .39	.327 .373 .417 .461 .502 .542	.42 .44 .47 .48 .50 .51	.52 .53 .54 .54 .54 .54										
30	.050 .094 .140 .167 .233 .280		.327 .373 .417 .461 .502 .542	.582 .620 .651 .678 .702 .722	.582 .620 .651 .678 .702 .722	.739 .751 .759 .763 .762 .758										
45	.04 .07 .11 .14 .18 .21		.24 .27 .31 .34 .37 .39	.341 .377 .422 .465 .507 .546	.42 .45 .47 .49 .50 .52	.53 .54 .54 .54 .54 .54										
45	.055 .099 .145 .192 .238 .285		.341 .377 .422 .465 .507 .546	.590 .624 .655 .683 .707 .727	.590 .624 .655 .683 .707 .727	.743 .755 .764 .768 .766 .763										
1100	.04 .08 .11 .14 .18 .21		.24 .28 .31 .34 .37 .40	.345 .381 .425 .469 .510 .550	.43 .45 .47 .49 .51 .52	.53 .54 .54 .55 .55 .54										
1100	.059 .104 .149 .196 .242 .289		.345 .381 .425 .469 .510 .550	.594 .628 .655 .686 .710 .730	.594 .628 .655 .686 .710 .730	.747 .759 .768 .772 .772 .767										
19	.05 .08 .11 .15 .18 .21		.25 .28 .31 .34 .37 .40	.358 .383 .426 .471 .513 .552	.43 .45 .47 .49 .51 .52	.53 .54 .54 .55 .55 .55										
19	.062 .107 .152 .199 .245 .292		.340 .385 .429 .473 .514 .553	.598 .631 .662 .690 .714 .735	.598 .631 .662 .690 .714 .735	.752 .754 .773 .777 .778 .774										
30	.05 .08 .11 .15 .18 .22		.25 .28 .31 .34 .37 .40	.340 .386 .430 .473 .514 .554	.42 .45 .47 .49 .51 .52	.53 .54 .55 .55 .55 .55										
30	.065 .109 .155 .201 .247 .293		.340 .386 .430 .473 .514 .554	.596 .632 .663 .691 .715 .736	.596 .632 .663 .691 .715 .736	.753 .765 .774 .779 .779 .775										

** SIGNIFIES COS Z = 1.
ADD 100 TO VALUES PRECEDED BY *

SEP-DEC	80 S	DATE												DEC							
		5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30		
1200	.05 .08 .12 .15 .18 .22	.25 .28 .31 .34 .37 .40	.34 .37 .40	.43 .45 .47 .49 .51 .52	.52	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	
067	111 156 202 248 294	340 385 430 472 514	553	597 131 662 690 715	735	752 763 774 779 780	773	751 763 774 778 779	775	751 763 774 778 779	775	751 763 774 778 779	775	751 763 774 778 779	775	751 763 774 778 779	775	751 763 774 778 779	775	751 763 774 778 779	775
15	.05 .08 .11 .15 .18 .21	.25 .28 .31 .34 .37 .40	.34 .37 .40	.43 .45 .47 .49 .51 .52	.52	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	
066	110 155 201 247 293	339 384 428 471 512	552	596 130 651 689 713	734	750 761 775 780	779	751 762 776 781	780	751 762 776 781	780	751 762 776 781	780	751 762 776 781	780	751 762 776 781	780	751 762 776 781	780	751 762 776 781	780
30	.05 .08 .11 .15 .18 .21	.25 .28 .31 .34 .37 .40	.34 .37 .40	.43 .45 .47 .49 .51 .52	.52	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	
065	108 153 199 245 291	336 381 426 468 510	549	593 127 658 666 711	732	749 763 777 782	778	750 764 779 783	782	750 764 779 783	782	750 764 779 783	782	750 764 779 783	782	750 764 779 783	782	750 764 779 783	782	750 764 779 783	782
45	.05 .08 .11 .14 .18 .21	.24 .28 .31 .34 .37 .39	.34 .37 .40	.42 .45 .47 .49 .50 .52	.52	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55		
062	106 150 196 242 287	333 378 422 465 506	545	593 624 655 683 708	729	746 763 774 775	772	750 765 779 784	782	750 765 779 784	782	750 765 779 784	782	750 765 779 784	782	750 765 779 784	782	750 765 779 784	782	750 765 779 784	782
1300	.04 .08 .11 .14 .17 .21	.24 .27 .30 .33 .36 .39	.33 .36 .39	.42 .44 .47 .48 .50 .52	.52	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	.53 .54 .55 .55 .55 .55	
058	102 147 192 238 283	329 374 418 460 502	541	585 619 651 679 704	725	742 755 765 771	772	769	772	755 765 771 772	769	755 765 771 772	769	755 765 771 772	769	755 765 771 772	769	755 765 771 772	769	755 765 771 772	769
15	.04 .07 .11 .14 .17 .20	.24 .27 .30 .33 .36 .39	.33 .36 .39	.42 .44 .46 .48 .50 .51	.51	.52 .53 .54 .54 .54 .54	.52 .53 .54 .54 .54 .54	.52 .53 .54 .54 .54 .54	.52 .53 .54 .54 .54 .54	.52 .53 .54 .54 .54 .54	.52 .53 .54 .54 .54 .54	.52 .53 .54 .54 .54 .54	.52 .53 .54 .54 .54 .54	.52 .53 .54 .54 .54 .54	.52 .53 .54 .54 .54 .54	.52 .53 .54 .54 .54 .54	.52 .53 .54 .54 .54 .54	.52 .53 .54 .54 .54 .54	.52 .53 .54 .54 .54 .54	.52 .53 .54 .54 .54 .54	
054	997 142 187 232 278	323 368 412 455 496	535	590 614 645 674 699	720	738 751 761 766	763	765	765	738 751 761 766	763	738 751 761 766	763	738 751 761 766	763	738 751 761 766	763	738 751 761 766	763	738 751 761 766	763
345	.04 .07 .10 .13 .17 .20	.23 .26 .29 .32 .35 .38	.32 .35 .38	.41 .44 .46 .48 .49 .51	.51	.52 .53 .54 .54 .54 .54	.52 .53 .54 .54 .54 .54	.52 .53 .54 .54 .54 .54	.52 .53 .54 .54 .54 .54	.52 .53 .54 .54 .54 .54	.52 .53 .54 .54 .54 .54	.52 .53 .54 .54 .54 .54	.52 .53 .54 .54 .54 .54	.52 .53 .54 .54 .54 .54	.52 .53 .54 .54 .54 .54	.52 .53 .54 .54 .54 .54	.52 .53 .54 .54 .54 .54	.52 .53 .54 .54 .54 .54	.52 .53 .54 .54 .54 .54	.52 .53 .54 .54 .54 .54	
45	.03 .06 .10 .13 .16 .19	.23 .26 .29 .32 .35 .38	.32 .35 .38	.41 .43 .45 .47 .49 .50	.50	.51 .52 .53 .53 .53 .53	.51 .52 .53 .53 .53 .53	.51 .52 .53 .53 .53 .53	.51 .52 .53 .53 .53 .53	.51 .52 .53 .53 .53 .53	.51 .52 .53 .53 .53 .53	.51 .52 .53 .53 .53 .53	.51 .52 .53 .53 .53 .53	.51 .52 .53 .53 .53 .53	.51 .52 .53 .53 .53 .53	.51 .52 .53 .53 .53 .53	.51 .52 .53 .53 .53 .53	.51 .52 .53 .53 .53 .53	.51 .52 .53 .53 .53 .53	.51 .52 .53 .53 .53 .53	
042	85 129 174 220 265	310 355 398 441 482	522	563 632 660 686 707	725	725 739 749 755	756	753	753	725 739 749 755	753	725 739 749 755	753	725 739 749 755	753	725 739 749 755	753	725 739 749 755	753	725 739 749 755	753
1400	.03 .06 .09 .12 .16 .19	.22 .25 .28 .31 .34 .37	.31 .34 .37	.40 .42 .45 .47 .48 .50	.50	.51 .52 .53 .53 .53 .53	.51 .52 .53 .53 .53 .53	.51 .52 .53 .53 .53 .53	.51 .52 .53 .53 .53 .53	.51 .52 .53 .53 .53 .53	.51 .52 .53 .53 .53 .53	.51 .52 .53 .53 .53 .53	.51 .52 .53 .53 .53 .53	.51 .52 .53 .53 .53 .53	.51 .52 .53 .53 .53 .53	.51 .52 .53 .53 .53 .53	.51 .52 .53 .53 .53 .53	.51 .52 .53 .53 .53 .53	.51 .52 .53 .53 .53 .53	.51 .52 .53 .53 .53 .53	
035	978 122 167 212 257	302 347 390 433 474	513	558 582 614 653 678	700	718 732 742 748	749	747	747	718 732 742 748	747	718 732 742 748	747	718 732 742 748	747	718 732 742 748	747	718 732 742 748	747	718 732 742 748	747
15	.02 .05 .08 .12 .15 .18	.21 .25 .28 .31 .34 .36	.31 .34 .36	.35 .42 .44 .46 .48 .49	.49	.50 .51 .52 .52 .52 .52	.50 .51 .52 .52 .52 .52	.50 .51 .52 .52 .52 .52	.50 .51 .52 .52 .52 .52	.50 .51 .52 .52 .52 .52	.50 .51 .52 .52 .52 .52	.50 .51 .52 .52 .52 .52	.50 .51 .52 .52 .52 .52	.50 .51 .52 .52 .52 .52	.50 .51 .52 .52 .52 .52	.50 .51 .52 .52 .52 .52	.50 .51 .52 .52 .52 .52	.50 .51 .52 .52 .52 .52	.50 .51 .52 .52 .52 .52	.50 .51 .52 .52 .52 .52	.50 .51 .52 .52 .52 .52
027	970 114 158 203 248	293 338 361 424 465	534	544 573 615 644 669	691	709 724 734 740	742	739	739	709 724 734 740	739	709 724 734 740	739	709 724 734 740	739	709 724 734 740	739	709 724 734 740	739	709 724 734 740	739
30	.01 .05 .08 .11 .14 .17	.21 .24 .27 .30 .33 .36	.30 .33 .36	.31 .43 .45 .47 .48	.48	.50 .51 .52 .52 .52 .52	.50 .51 .52 .52 .52 .52	.50 .51 .52 .52 .52 .52	.50 .51 .52 .52 .52 .52	.50 .51 .52 .52 .52 .52	.50 .51 .52 .52 .52 .52	.50 .51 .52 .52 .52 .52	.50 .51 .52 .52 .52 .52	.50 .51 .52 .52 .52 .52	.50 .51 .52 .52 .52 .52	.50 .51 .52 .52 .52 .52	.50 .51 .52 .52 .52 .52	.50 .51 .52 .52 .52 .52	.50 .51 .52 .52 .52 .52	.50 .51 .52 .52 .52 .52	.50 .51 .52 .52 .52 .52
45	.01 .04 .07 .10 .13 .17	.20 .23 .26 .29 .32 .35	.29 .32 .35	.33 .42 .43 .45 .46 .48	.48	.49 .50 .51 .51 .51 .51	.49 .50 .51 .51 .51 .51	.49 .50 .51 .51 .51 .51	.49 .50 .51 .51 .51 .51	.49 .50 .51 .51 .51 .51	.49 .50 .51 .51 .51 .51	.49 .50 .51 .51 .51 .51	.49 .50 .51 .51 .51 .51	.49 .50 .51 .51 .51 .51	.49 .50 .51 .51 .51 .51	.49 .50 .51 .51 .51 .51	.49 .50 .51 .51 .51 .51	.49 .50 .51 .51 .51 .51	.49 .50 .51 .51 .51 .51	.49 .50 .51 .51 .51 .51	.49 .50 .51 .51 .51 .51
008	951 994 139 183 226	275 317 361 403 445	484	521 553 585 624 650	672	690 705 715 722	724	721	721	690 705 715 722	721	690 705 715 722	721	690 705 715 722	721	690 705 715 722	721	690 705 715 722	721	690 705 715 722	721

TABLE 3-1 SOLAR PARAMETERS CCS Z = 1.
XG (W/M=2.) ADD .000 TO VALUES PRECEDED BY
... SIGNIFIES COS Z = 1.

AST	SEP										OCT										NOV										DEC										
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30																	
1500	.00	.03	.06	.09	.13	.16	.19	.22	.25	.28	.31	.34	.37	.40	.42	.44	.45	.47	.48	.49	.50	.50	.50	.50	.50	.50	.50	.50	.50	.50											
	000	040	084	128	172	217	262	306	350	392	433	473	516	552	584	613	639	661	680	695	711	714	711	711	711	711	711	711	711	711	711	711									
15	.00	.02	.05	.09	.12	.15	.16	.21	.25	.28	.30	.33	.35	.37	.41	.43	.45	.46	.47	.47	.49	.50	.50	.50	.50	.50	.50	.50	.50	.50	.50	.50									
	020	029	072	116	161	205	250	294	338	386	421	451	506	546	573	602	628	650	669	693	714	734	701	703	701	701	701	701	701	701	701	701									
30	.00	.01	.04	.08	.11	.14	.17	.21	.24	.27	.30	.32	.35	.38	.40	.42	.44	.45	.47	.47	.49	.49	.49	.49	.49	.49	.49	.49	.49	.49	.49	.49	.49	.49							
	000	017	060	104	148	193	235	282	325	368	403	446	493	529	560	590	616	638	657	672	689	691	689	689	689	689	689	689	689	689	689	689	689	689	689						
45	.00	.00	.04	.07	.10	.13	.16	.20	.23	.26	.29	.31	.34	.37	.39	.41	.43	.44	.46	.47	.47	.48	.48	.48	.48	.48	.48	.48	.48	.48	.48	.48	.48	.48	.48	.48					
	000	004	047	091	135	180	224	268	312	354	396	435	480	516	547	577	603	626	644	651	670	677	679	677	677	677	677	677	677	677	677	677	677	677	677	677					
1600	.00	.00	.03	.06	.09	.12	.15	.19	.22	.25	.28	.30	.34	.36	.38	.40	.42	.44	.45	.45	.46	.47	.47	.47	.47	.47	.47	.47	.47	.47	.47	.47	.47	.47	.47	.47	.47	.47			
	000	000	034	070	122	166	211	255	298	341	382	422	467	502	534	564	590	613	632	647	658	664	667	665	665	665	665	665	665	665	665	665	665	665	665	665	665	665			
15	.00	.00	.02	.05	.08	.11	.14	.18	.21	.24	.27	.29	.32	.35	.37	.39	.41	.43	.44	.45	.45	.46	.46	.46	.46	.46	.46	.46	.46	.46	.46	.46	.46	.46	.46	.46	.46	.46	.46		
	000	000	020	054	108	152	197	241	284	327	359	408	453	495	520	550	576	599	618	632	645	651	654	652	652	652	652	652	652	652	652	652	652	652	652	652	652	652	652		
30	.00	.00	.01	.04	.07	.10	.13	.16	.20	.23	.26	.28	.31	.34	.36	.38	.40	.42	.43	.44	.44	.45	.45	.45	.45	.45	.45	.45	.45	.45	.45	.45	.45	.45	.45	.45	.45	.45	.45	.45	
	000	000	006	050	094	138	182	226	270	312	353	393	433	474	506	536	562	585	605	620	631	638	640	638	638	638	638	638	638	638	638	638	638	638	638	638	638	638	638		
45	.00	.00	.00	.03	.06	.09	.12	.15	.19	.22	.24	.27	.30	.33	.35	.37	.39	.41	.42	.43	.44	.44	.44	.44	.44	.44	.44	.44	.44	.44	.44	.44	.44	.44	.44	.44	.44	.44	.44		
	000	000	000	035	079	123	167	211	255	297	339	378	424	456	492	521	548	571	590	605	617	624	627	625	625	625	625	625	625	625	625	625	625	625	625	625	625	625	625	625	625
1700	.00	.00	.00	.02	.05	.08	.11	.14	.17	.20	.23	.26	.29	.32	.34	.36	.38	.40	.41	.42	.43	.43	.43	.43	.43	.43	.43	.43	.43	.43	.43	.43	.43	.43	.43	.43	.43	.43	.43	.43	
	000	000	000	020	064	108	152	196	240	282	324	363	405	444	477	507	534	557	576	593	613	612	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611
15	.00	.00	.00	.00	.00	.07	.10	.13	.16	.19	.22	.25	.28	.31	.33	.35	.37	.39	.40	.41	.42	.42	.42	.42	.42	.42	.42	.42	.42	.42	.42	.42	.42	.42	.42	.42	.42	.42	.42	.42	
	000	000	000	005	049	093	137	181	224	267	308	348	394	425	462	519	542	562	577	598	595	596	596	596	596	596	596	596	596	596	596	596	596	596	596	596	596	596	596		
30	.00	.00	.00	.00	.02	.06	.09	.12	.15	.18	.21	.24	.27	.30	.32	.34	.36	.37	.39	.40	.41	.41	.41	.41	.41	.41	.41	.41	.41	.41	.41	.41	.41	.41	.41	.41	.41	.41	.41	.41	.41
	000	000	000	000	033	077	122	155	209	252	293	333	374	414	447	477	504	527	547	562	574	581	584	582	582	582	582	582	582	582	582	582	582	582	582	582	582	582	582	582	
45	.00	.00	.00	.00	.01	.05	.08	.11	.14	.17	.20	.23	.26	.29	.31	.33	.35	.36	.38	.39	.40	.40	.40	.40	.40	.40	.40	.40	.40	.40	.40	.40	.40	.40	.40	.40	.40	.40	.40	.40	
	000	000	000	000	018	062	106	150	193	236	275	318	363	399	432	462	489	512	532	543	559	566	569	567	567	567	567	567	567	567	567	567	567	567	567	567	567	567	567	567	567

TABLE B-1 SOLAR PARAMETERS CCS Z = 1.
.0 (W/m²•K²)

1--1 SIGNIFIES CCS Z = 1.
ADD 1000 TO VALUES PRECEDED BY +

MST	DATE										DEC									
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10
1800 .00 .00 .00 .00 .00 .03	.07	.10	.13	.16	.19	.22	.25	.28	.30	.32	.34	.35	.37	.35	.39	.39	.39	.39	.37	.35
000 .000 .000 .000 .000 .046	090	134	178	221	262	302	342	384	417	447	474	497	517	553	594	551	554	552	514	551
15 .00 .00 .00 .00 .00 .02	.06	.09	.12	.15	.18	.21	.24	.26	.29	.31	.33	.34	.36	.37	.38	.38	.38	.38	.36	.37
000 .000 .000 .000 .000 .031	075	119	162	205	247	287	333	369	402	432	459	483	502	513	542	537	539	537	542	537
30 .00 .00 .00 .00 .00 .01	.04	.08	.11	.14	.17	.20	.23	.25	.28	.30	.32	.33	.35	.35	.35	.37	.37	.37	.37	.37
000 .000 .000 .000 .000 .016	060	104	147	190	232	272	316	354	397	417	444	468	488	503	515	522	525	523	515	522
45 .00 .00 .00 .00 .00 .00	.03	.06	.10	.13	.16	.19	.22	.24	.27	.29	.31	.32	.34	.35	.35	.36	.36	.36	.35	.36
000 .000 .000 .000 .000 .000	044	088	132	175	217	257	303	339	372	403	430	453	473	493	500	508	510	508	500	508
1900 .00 .00 .00 .00 .00 .00	.02	.05	.09	.12	.15	.17	.21	.23	.26	.28	.30	.31	.33	.34	.34	.35	.35	.35	.34	.35
000 .000 .000 .000 .000 .000	030	074	117	160	202	242	283	324	358	388	415	439	459	475	493	496	494	496	494	496
15 .00 .00 .00 .00 .00 .00	.01	.04	.07	.11	.14	.16	.20	.22	.25	.27	.29	.30	.32	.33	.33	.34	.34	.34	.34	.34
000 .000 .000 .000 .000 .000	015	059	103	146	197	228	274	310	344	374	401	425	445	461	472	479	482	479	472	479
30 .00 .00 .00 .00 .00 .00	.00	.03	.06	.10	.13	.15	.19	.21	.24	.26	.28	.29	.31	.32	.32	.33	.33	.33	.32	.33
000 .000 .000 .000 .000 .000	001	045	089	132	173	214	260	296	330	360	388	411	431	447	466	465	466	466	465	466
45 .00 .00 .00 .00 .00 .00	.00	.02	.05	.09	.12	.14	.18	.20	.23	.25	.27	.28	.30	.31	.32	.32	.32	.32	.32	.32
000 .000 .000 .000 .000 .000	000	031	075	118	160	200	247	283	316	347	374	398	418	434	454	454	454	454	454	454
2000 .00 .00 .00 .00 .00 .00	.00	.01	.05	.08	.11	.14	.17	.19	.22	.24	.26	.27	.29	.30	.31	.31	.31	.31	.31	.31
000 .000 .000 .000 .000 .000	000	018	062	105	147	197	234	270	304	334	362	385	405	421	432	439	441	439	432	439
15 .00 .00 .00 .00 .00 .00	.00	.00	.04	.07	.10	.13	.16	.18	.21	.23	.25	.27	.28	.29	.29	.30	.30	.30	.30	.30
000 .000 .000 .000 .000 .000	000	005	049	092	132	175	221	258	291	322	349	373	393	403	425	427	429	426	425	426
30 .00 .00 .00 .00 .00 .00	.00	.00	.03	.06	.09	.12	.15	.18	.20	.22	.24	.26	.27	.29	.29	.29	.29	.29	.29	.29
000 .000 .000 .000 .000 .000	000	000	037	080	122	163	210	246	280	310	338	361	381	397	404	415	417	414	417	414
45 .00 .00 .00 .00 .00 .00	.00	.00	.02	.05	.08	.11	.14	.17	.19	.21	.23	.25	.26	.27	.28	.29	.29	.29	.29	.28
000 .000 .000 .000 .000 .000	000	000	026	069	111	152	193	235	269	299	327	350	370	395	417	403	405	403	403	403

SEP-DEC 80 S TABLE A-1 SOLAR PARAMETERS COS Z = 1.
X0 (W/m²•sr•2.) SIGNS 1000 TO VALUES PRECEDED BY *

MST	DATE										EC											
	5	10	15	20	25	30	5	10	15	20	25	30	5	10	15	20	25	30	5	10		
2100	.00	.00	.00	.00	.00	.00	.00	.01	.04	.07	.10	.14	.16	.18	.21	.23	.24	.26	.27	.27	.28	
	000	000	000	000	000	000	000	000	015	058	01	142	18H	225	248	289	316	340	260	375	565	395
15	.00	.00	.00	.00	.00	.00	.00	.00	.04	.07	.10	.13	.15	.18	.20	.22	.23	.25	.26	.27	.27	
	000	000	000	000	000	000	000	000	005	049	091	142	179	215	249	279	307	330	350	365	371	385
30	.00	.00	.00	.00	.00	.00	.00	.00	.03	.05	.09	.12	.15	.17	.19	.21	.23	.24	.25	.26	.27	
	000	000	000	000	000	000	000	000	040	052	123	170	216	240	271	293	321	341	355	357	373	372
45	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.08	.12	.14	.17	.19	.21	.22	.24	.25	.26	.26	
	000	000	000	000	000	000	000	000	032	074	145	162	173	232	263	290	313	333	349	359	365	367
2200	.00	.00	.00	.00	.00	.00	.00	.00	.02	.05	.08	.11	.14	.16	.18	.20	.22	.23	.24	.25	.25	
	000	000	000	000	000	000	000	000	024	067	108	155	191	225	255	283	306	325	341	351	357	359
15	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.07	.11	.13	.16	.18	.20	.21	.23	.24	.25	.25	
	000	000	000	000	000	000	000	000	018	060	102	148	165	218	249	276	300	319	334	345	351	352
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.07	.10	.13	.15	.17	.19	.21	.22	.23	.24	
	000	000	000	000	000	000	000	000	012	055	096	143	160	213	244	271	294	313	323	339	345	346
45	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	.07	.10	.13	.15	.17	.19	.21	.22	.23	.24	.24	
	000	000	000	000	000	000	000	000	003	051	092	139	175	209	239	266	289	309	323	334	340	337
2300	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.06	.16	.12	.15	.17	.19	.20	.22	.23	.24	.24	
	000	000	000	000	000	000	000	000	005	047	089	135	172	205	236	263	286	305	320	330	335	336
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.06	.10	.12	.15	.17	.19	.20	.21	.22	.23	.23	
	000	000	000	000	000	000	000	000	002	045	066	133	169	203	233	260	283	302	317	327	332	333
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.06	.04	.12	.14	.17	.18	.20	.21	.22	.23	.23	
	000	000	000	000	000	000	000	000	001	043	075	132	168	201	232	258	281	300	315	325	330	326
45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.06	.03	.12	.14	.17	.18	.20	.21	.22	.23	.23	
	000	000	000	000	000	000	000	000	000	043	084	131	167	201	231	258	281	269	314	323	329	325

SEP-DEC 80 S TABLE B-1 SOLAR PARAMETERS CGS 2
 x_0 ($w/n=2\cdot 2$) \therefore SIGNIFIES COS Z = 1.
ADD 1000 TO VALUES PRECEDED BY *

						COS Z											
LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH
CLR	CLR	CLR	.45	.49	.54	.58	.61	.65	.68	.71	.73	.75	.77	.78	.79	.80	.80
SCT	SCT	SCT	.43	.48	.52	.56	.60	.64	.67	.70	.72	.74	.76	.77	.79	.79	.79
BKN	BKN	BKN	.39	.43	.48	.52	.56	.60	.63	.66	.69	.71	.73	.74	.76	.76	.76
OVC	OVC	OVC	.38	.42	.46	.49	.53	.56	.59	.62	.65	.67	.69	.71	.73	.74	.74
CLR	SCT	CLR	.38	.42	.46	.50	.54	.57	.60	.63	.66	.68	.70	.71	.74	.75	.75
SCT	SCT	SCT	.37	.41	.45	.49	.53	.56	.60	.63	.65	.67	.69	.71	.73	.74	.74
BKN	BKN	BKN	.34	.38	.42	.46	.50	.53	.57	.60	.62	.65	.67	.68	.70	.71	.71
OVC	OVC	OVC	.33	.37	.40	.44	.47	.50	.53	.56	.59	.61	.63	.65	.67	.69	.70
CIR	BKN	CLR	.30	.34	.37	.40	.43	.46	.49	.52	.54	.56	.57	.59	.60	.61	.61
SCT	SCT	SCT	.29	.33	.36	.39	.43	.46	.48	.51	.53	.55	.57	.59	.60	.61	.61
BKN	BKN	BKN	.27	.30	.34	.37	.40	.43	.46	.49	.51	.53	.55	.57	.59	.59	.59
OVC	OVC	OVC	.27	.30	.33	.36	.39	.41	.44	.46	.49	.51	.53	.54	.56	.58	.58
CLR	OVC	CLR	.18	.20	.21	.22	.24	.26	.27	.28	.29	.30	.31	.32	.33	.34	.34
SCT	SCT	SCT	.18	.19	.21	.22	.24	.25	.27	.28	.29	.30	.31	.32	.33	.34	.34
BKN	BKN	BKN	.16	.18	.20	.21	.23	.25	.26	.27	.29	.30	.31	.32	.33	.33	.33
OVC	OVC	OVC	.16	.18	.19	.21	.22	.24	.25	.26	.27	.29	.30	.31	.32	.32	.32
SCT	CLR	CLR	.37	.41	.45	.49	.52	.56	.59	.62	.65	.67	.69	.71	.72	.73	.76
SCT	SCT	SCT	.36	.40	.44	.48	.51	.55	.58	.61	.64	.67	.69	.70	.73	.75	.75
BKN	BKN	BKN	.32	.36	.41	.45	.48	.52	.55	.59	.61	.64	.66	.68	.70	.72	.72
OVC	OVC	OVC	.32	.35	.39	.42	.46	.49	.52	.55	.58	.60	.63	.65	.66	.67	.67
SCT	SCT	CLR	.32	.36	.39	.43	.47	.50	.53	.56	.59	.61	.63	.65	.67	.69	.70
SCT	SCT	SCT	.31	.35	.38	.42	.46	.49	.52	.56	.58	.61	.63	.65	.67	.68	.68
BKN	BKN	BKN	.28	.32	.36	.40	.43	.47	.50	.53	.56	.58	.61	.63	.65	.66	.66
OVC	OVC	OVC	.28	.31	.35	.38	.41	.44	.47	.50	.53	.55	.58	.60	.62	.63	.67
SCT	BKN	CLR	.26	.29	.32	.35	.38	.41	.44	.46	.49	.51	.53	.54	.56	.57	.59
SCT	SCT	SCT	.25	.28	.31	.34	.38	.41	.43	.46	.48	.51	.52	.54	.56	.57	.58
BKN	BKN	BKN	.23	.26	.29	.33	.36	.39	.42	.44	.47	.49	.51	.52	.54	.55	.56
OVC	OVC	OVC	.23	.26	.28	.31	.34	.37	.40	.42	.44	.47	.49	.50	.52	.53	.55
SCT	OVC	CLR	.16	.17	.19	.21	.22	.23	.25	.26	.27	.28	.29	.30	.31	.32	.33
SCT	SCT	SCT	.15	.17	.19	.20	.22	.23	.25	.26	.27	.28	.29	.30	.31	.32	.33
BKN	BKN	BKN	.15	.16	.18	.19	.21	.23	.24	.25	.27	.28	.29	.30	.31	.32	.32
OVC	OVC	OVC	.14	.16	.17	.19	.20	.22	.23	.24	.26	.27	.28	.29	.30	.31	.32

STATE 1-1-1

THIN HIGH CLOUD
LOW ALBEDO
VIS => 11 KMTABLE B-2 SOLAR TRANSMISSION (τ)

TABLE B-2 SOLAR TRANSMISSION (τ)

TABLE B-2 SOLAR TRANSMISSION (τ)

**THIN HIGH CLOUD
LOW ALBEDO
VIS < 11 KM**

	LOW	MID	HIGH	COS 2	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95				
BKN	CLR	SCT	BKN	BKN	.35	.37	.40	.42	.45	.47	.49	.51	.52	.54	.55	.56	.57			
.26	.29	.32	.31	.34	.37	.39	.42	.44	.47	.49	.50	.52	.53	.54	.55	.56	.56			
.25	.28	.31	.26	.29	.35	.38	.40	.43	.45	.47	.49	.50	.52	.53	.54	.54	.54			
.23	.26	.29	.23	.26	.32	.35	.38	.40	.43	.45	.47	.48	.50	.51	.53	.53	.53			
.25	.28	.31	.25	.28	.33	.36	.38	.41	.43	.45	.47	.49	.50	.51	.54	.54	.54			
BKN	SCT	CLR	BKN	BKN	.23	.26	.28	.31	.34	.36	.38	.41	.43	.45	.47	.49	.50			
.22	.25	.28	.21	.23	.31	.33	.36	.38	.41	.43	.45	.47	.49	.50	.52	.53	.53			
.21	.24	.26	.20	.22	.29	.32	.34	.37	.39	.42	.44	.47	.48	.49	.50	.51	.51			
.25	.28	.31	.23	.25	.30	.33	.35	.37	.40	.42	.43	.45	.47	.48	.49	.50	.51			
BKN	BKN	CLR	BKN	BKN	.19	.21	.24	.26	.29	.31	.33	.35	.37	.39	.40	.42	.43	.46		
.18	.21	.23	.17	.20	.26	.28	.30	.33	.36	.38	.40	.42	.43	.44	.45	.45	.46			
.17	.20	.22	.19	.21	.24	.27	.29	.31	.34	.37	.39	.40	.42	.43	.44	.44	.45			
.17	.19	.21	.17	.19	.24	.26	.28	.30	.32	.34	.36	.37	.39	.40	.41	.43	.43			
BKN	BKN	CLR	BKN	BKN	.12	.14	.15	.16	.17	.19	.20	.21	.22	.23	.24	.25	.26	.27		
.12	.13	.15	.15	.16	.17	.19	.20	.21	.22	.23	.24	.25	.26	.27	.27	.27	.27			
.11	.13	.14	.14	.15	.15	.17	.18	.19	.20	.21	.22	.23	.24	.25	.26	.26	.26			
.11	.12	.14	.12	.14	.15	.16	.17	.19	.20	.21	.22	.23	.24	.25	.26	.26	.26			
BKN	OVC	CLR	BKN	BKN	.12	.14	.15	.16	.17	.18	.20	.22	.23	.24	.25	.26	.27	.27	.27	
.12	.13	.15	.15	.16	.16	.17	.19	.20	.21	.22	.23	.24	.25	.26	.27	.27	.27			
.12	.14	.15	.14	.15	.15	.17	.18	.19	.20	.21	.22	.23	.24	.25	.26	.26	.26			
.12	.13	.15	.13	.14	.15	.17	.18	.19	.20	.21	.22	.23	.24	.25	.26	.26	.26			
OVC	OVC	CLR	BKN	BKN	.13	.15	.17	.18	.20	.22	.23	.24	.26	.27	.28	.29	.30	.31	.34	
.13	.14	.16	.15	.16	.17	.18	.20	.21	.22	.23	.24	.25	.26	.27	.28	.29	.33			
.12	.14	.15	.14	.15	.15	.17	.19	.21	.22	.24	.25	.26	.27	.28	.29	.30	.33			
.12	.13	.15	.13	.14	.15	.17	.18	.20	.21	.23	.24	.25	.26	.27	.28	.29	.32			
OVC	SCT	CLR	BKN	BKN	.12	.14	.15	.16	.17	.18	.20	.22	.23	.24	.26	.27	.28	.29	.32	
.12	.13	.15	.13	.14	.15	.17	.19	.21	.22	.24	.25	.26	.27	.28	.29	.30	.32			
.11	.12	.14	.12	.13	.14	.15	.17	.18	.20	.21	.23	.24	.25	.26	.27	.28	.26			
.11	.12	.14	.12	.13	.15	.17	.18	.20	.21	.23	.24	.25	.26	.27	.28	.26	.26			
OVC	SCT	CLR	BKN	BKN	.12	.14	.15	.17	.19	.20	.22	.23	.24	.26	.27	.28	.29	.31	.34	
.12	.13	.15	.13	.14	.15	.17	.19	.20	.21	.23	.24	.26	.27	.28	.29	.31	.33			
.11	.12	.14	.11	.12	.13	.15	.17	.18	.20	.21	.23	.24	.26	.27	.28	.29	.32			
.11	.12	.14	.11	.12	.13	.15	.17	.18	.20	.21	.23	.24	.26	.27	.28	.29	.32			
OVC	SCT	CLR	BKN	BKN	.10	.12	.13	.15	.16	.18	.19	.20	.22	.23	.24	.25	.26	.27	.28	.29
.10	.12	.13	.12	.13	.15	.16	.18	.19	.20	.22	.23	.24	.25	.26	.27	.28	.29			
.09	.11	.12	.11	.12	.14	.16	.17	.18	.20	.21	.22	.23	.24	.25	.26	.27	.28			
.09	.11	.12	.11	.12	.14	.15	.16	.18	.19	.20	.21	.23	.24	.25	.26	.27	.27			
OVC	OVC	CLR	BKN	BKN	.07	.08	.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.19	.19	.19	
.07	.08	.09	.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.19	.18	.18	.18	.18			
.07	.08	.09	.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.19	.18	.18	.18	.18			
.07	.07	.08	.08	.09	.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.17	.18	.18			

STATE 1-1-2 THIN HIGH CLOUD
LOW ALBEDO
VIS < 11 KM

TABLE B-2 SOLAR TRANSMISSION (τ)

			COS Z															
LOW	MID	HIGH	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95
CLR	CLR	CLR	.58	.62	.66	.69	.72	.74	.77	.79	.80	.82	.83	.84	.84	.84	.85	.85
SCT	SCT	SCT	.52	.56	.61	.64	.68	.71	.74	.76	.78	.80	.81	.82	.82	.84	.84	.84
BKN	BKN	BKN	.48	.53	.57	.61	.65	.69	.72	.74	.76	.78	.80	.81	.82	.83	.83	.83
DVC	DVC	DVC	.48	.52	.56	.59	.63	.66	.69	.71	.74	.76	.77	.78	.79	.79	.81	.81
CLR	SCT	CLR	.48	.53	.57	.61	.64	.67	.70	.73	.75	.77	.78	.80	.81	.82	.82	.82
SCT	SCT	SCT	.47	.51	.56	.60	.63	.67	.70	.72	.74	.76	.78	.79	.80	.82	.82	.82
BKN	BKN	BKN	.44	.48	.53	.57	.61	.64	.67	.70	.73	.75	.76	.77	.79	.80	.80	.80
DVC	DVC	DVC	.43	.47	.51	.55	.59	.62	.65	.68	.70	.72	.74	.76	.77	.79	.79	.79
CLR	BKN	CLR	.41	.45	.49	.53	.56	.60	.63	.65	.67	.69	.71	.72	.73	.74	.75	.75
SCT	SCT	SCT	.40	.44	.48	.52	.56	.59	.62	.65	.67	.69	.71	.72	.73	.75	.75	.75
BKN	BKN	BKN	.37	.41	.46	.50	.54	.57	.60	.63	.66	.68	.71	.72	.73	.73	.73	.73
DVC	DVC	DVC	.37	.41	.45	.48	.52	.55	.58	.61	.63	.66	.67	.69	.70	.72	.72	.72
CLR	OVC	CLR	.27	.30	.33	.35	.38	.40	.43	.45	.47	.48	.50	.51	.52	.53	.54	.54
SCT	SCT	SCT	.27	.30	.32	.35	.38	.40	.42	.45	.46	.48	.50	.51	.52	.53	.53	.53
BKN	BKN	BKN	.25	.28	.31	.34	.36	.39	.41	.44	.46	.47	.49	.50	.51	.52	.52	.52
DVC	DVC	DVC	.25	.28	.30	.33	.35	.38	.40	.42	.44	.46	.48	.49	.50	.51	.52	.52
SCT	CLR	CLR	.49	.53	.57	.61	.65	.68	.70	.73	.75	.77	.78	.80	.81	.82	.83	.83
SCT	SCT	SCT	.48	.52	.56	.60	.64	.67	.70	.72	.75	.77	.78	.80	.81	.82	.82	.82
BKN	BKN	BKN	.44	.49	.53	.57	.61	.65	.68	.70	.73	.75	.77	.79	.80	.81	.81	.81
DVC	DVC	DVC	.44	.48	.52	.55	.59	.62	.65	.68	.70	.73	.74	.76	.77	.78	.78	.78
SCT	SCT	CLR	.44	.49	.53	.57	.60	.63	.66	.69	.71	.73	.75	.77	.78	.79	.80	.81
SCT	SCT	SCT	.43	.47	.52	.56	.59	.63	.66	.69	.71	.73	.75	.77	.78	.79	.80	.80
BKN	BKN	BKN	.40	.45	.49	.53	.57	.61	.64	.67	.70	.72	.73	.75	.76	.77	.78	.78
DVC	DVC	DVC	.40	.44	.48	.51	.55	.59	.62	.65	.68	.70	.73	.75	.76	.77	.78	.78
SCT	BKN	CLR	.38	.42	.46	.49	.53	.56	.59	.62	.64	.66	.68	.70	.71	.72	.73	.73
SCT	SCT	SCT	.37	.41	.45	.49	.52	.56	.59	.62	.64	.66	.68	.70	.71	.72	.73	.73
BKN	BKN	BKN	.34	.39	.43	.47	.50	.54	.57	.60	.63	.65	.67	.68	.69	.71	.72	.72
DVC	DVC	DVC	.34	.38	.42	.45	.49	.52	.55	.58	.61	.63	.65	.67	.68	.70	.71	.71
SCT	OVC	CLR	.26	.28	.31	.33	.36	.38	.40	.43	.44	.46	.48	.49	.50	.51	.52	.52
SCT	SCT	SCT	.25	.28	.30	.33	.35	.38	.40	.42	.44	.46	.48	.49	.50	.51	.52	.52
BKN	BKN	BKN	.24	.26	.29	.32	.34	.37	.39	.41	.43	.45	.47	.48	.49	.50	.51	.51
DVC	DVC	DVC	.23	.26	.28	.31	.33	.36	.38	.40	.42	.44	.46	.47	.48	.49	.50	.51

TABLE B-2 SOLAR TRANSMISSION (τ)
 STATE 1-2-1 THIN HIGH CLOUD
 HIGH ALBEDO
 VIS \rightarrow 11 KM

	COS Z			COS Z			COS Z			COS Z			COS Z			COS Z			COS Z			
LOW	MID	HIGH	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	
BKN	CLR	CLR	.44	.48	.52	.55	.59	.61	.64	.66	.68	.70	.72	.73	.74	.75	.76	.76	.76	.76	.76	
SCT	.43	.47	.51	.54	.58	.61	.64	.66	.68	.70	.71	.73	.74	.75	.76	.76	.76	.76	.76	.76	.76	
BKN	.40	.44	.48	.52	.55	.59	.62	.64	.66	.68	.70	.71	.72	.73	.74	.74	.74	.74	.74	.74	.74	
OVC	.39	.43	.47	.50	.53	.57	.59	.62	.64	.66	.68	.69	.71	.72	.73	.73	.73	.73	.73	.73	.73	
BKN	SCT	CLR	.40	.44	.48	.51	.55	.58	.60	.63	.65	.67	.69	.70	.71	.72	.73	.74	.74	.74	.74	
SCT	.39	.43	.47	.51	.54	.57	.60	.63	.65	.67	.68	.70	.71	.72	.73	.74	.74	.74	.74	.74	.74	
BKN	.36	.40	.44	.48	.52	.55	.58	.61	.63	.65	.67	.68	.69	.70	.71	.72	.72	.72	.72	.72	.72	
OVC	.36	.40	.43	.47	.50	.53	.56	.59	.61	.63	.65	.67	.68	.69	.70	.71	.71	.71	.71	.71	.71	
BKN	BKN	CLR	.34	.38	.42	.45	.48	.51	.54	.57	.59	.61	.62	.64	.65	.66	.67	.67	.67	.67	.67	
SCT	.33	.37	.41	.44	.48	.51	.54	.56	.58	.60	.62	.64	.65	.66	.66	.67	.67	.67	.67	.67	.67	
BKN	.31	.35	.39	.43	.46	.49	.52	.55	.57	.59	.61	.62	.64	.65	.65	.66	.66	.66	.66	.66	.66	
OVC	.31	.34	.38	.41	.44	.47	.50	.53	.55	.57	.59	.61	.62	.63	.64	.65	.65	.65	.65	.65	.65	
BKN	BKN	CLR	.23	.26	.28	.31	.33	.35	.37	.39	.41	.42	.44	.45	.46	.47	.47	.48	.48	.48	.48	.48
SCT	.23	.25	.28	.30	.33	.35	.37	.39	.41	.42	.43	.45	.46	.47	.47	.48	.48	.48	.48	.48	.48	
BKN	.22	.24	.27	.29	.32	.34	.36	.38	.40	.41	.43	.45	.46	.47	.47	.47	.47	.47	.47	.47	.47	
OVC	.22	.24	.26	.28	.31	.33	.35	.37	.39	.40	.42	.43	.44	.45	.46	.46	.46	.46	.46	.46	.46	
BKN	OVC	CLR	.26	.29	.32	.35	.38	.41	.43	.45	.47	.49	.50	.52	.53	.54	.55	.56	.57	.57	.57	.57
SCT	.25	.29	.32	.35	.38	.40	.43	.45	.47	.49	.50	.52	.53	.54	.55	.56	.56	.56	.56	.56	.56	
BKN	.24	.27	.30	.33	.36	.39	.41	.44	.46	.48	.49	.51	.52	.53	.54	.55	.55	.55	.55	.55	.55	
OVC	.23	.26	.29	.32	.35	.38	.40	.42	.44	.46	.48	.49	.51	.52	.53	.54	.54	.54	.54	.54	.54	
OVC	CLR	.26	.29	.32	.35	.38	.41	.43	.45	.47	.49	.50	.52	.53	.54	.55	.56	.56	.56	.56	.56	
SCT	.25	.29	.32	.35	.38	.40	.43	.45	.47	.49	.50	.52	.53	.54	.55	.56	.56	.56	.56	.56	.56	
BKN	.24	.27	.30	.33	.36	.39	.41	.44	.46	.48	.49	.51	.52	.53	.54	.55	.55	.55	.55	.55	.55	
OVC	.23	.26	.29	.32	.35	.38	.40	.42	.44	.46	.48	.49	.51	.52	.53	.54	.54	.54	.54	.54	.54	
OVC	SCT	.24	.27	.30	.33	.36	.38	.41	.43	.45	.47	.49	.50	.51	.52	.53	.54	.55	.55	.55	.55	
SCT	.23	.27	.30	.33	.36	.38	.41	.43	.45	.47	.49	.50	.51	.52	.53	.54	.55	.55	.55	.55	.55	
BKN	.22	.25	.28	.31	.34	.37	.39	.42	.44	.46	.47	.49	.50	.51	.52	.53	.54	.54	.54	.54	.54	
OVC	.22	.25	.27	.30	.33	.36	.38	.40	.42	.44	.46	.48	.49	.50	.51	.52	.53	.53	.53	.53	.53	
OVC	SCT	.24	.27	.30	.33	.36	.38	.41	.43	.45	.47	.49	.50	.51	.52	.53	.54	.55	.55	.55	.55	
SCT	.23	.27	.30	.33	.36	.38	.41	.43	.45	.47	.49	.50	.51	.52	.53	.54	.55	.55	.55	.55	.55	
BKN	.22	.25	.28	.31	.34	.37	.39	.42	.44	.46	.47	.49	.50	.51	.52	.53	.54	.54	.54	.54	.54	
OVC	.22	.25	.27	.30	.33	.36	.38	.40	.42	.44	.46	.48	.49	.50	.51	.52	.53	.53	.53	.53	.53	
OVC	BKN	.24	.27	.30	.33	.36	.38	.41	.43	.45	.47	.49	.50	.51	.52	.53	.54	.55	.55	.55	.55	
SCT	.20	.23	.26	.29	.32	.34	.37	.39	.41	.43	.44	.46	.47	.48	.49	.49	.50	.50	.50	.50	.50	
BKN	.19	.22	.25	.28	.31	.33	.36	.38	.40	.42	.43	.45	.46	.47	.48	.49	.49	.49	.49	.49	.49	
OVC	.19	.22	.24	.27	.30	.32	.34	.37	.39	.41	.42	.44	.45	.46	.47	.48	.48	.48	.48	.48	.48	
OVC	BKN	.21	.24	.27	.29	.32	.35	.37	.39	.41	.43	.44	.46	.47	.48	.49	.49	.49	.49	.49	.49	
SCT	.15	.17	.19	.21	.23	.24	.26	.28	.29	.30	.32	.33	.34	.34	.35	.36	.36	.36	.36	.36	.36	
BKN	.15	.17	.19	.21	.22	.24	.26	.28	.29	.30	.32	.33	.34	.34	.35	.35	.35	.35	.35	.35	.35	
OVC	.14	.16	.18	.20	.22	.24	.25	.27	.28	.29	.30	.31	.32	.32	.33	.34	.34	.34	.34	.34	.34	

STATE 1-2-1

THIN HIGH CLOUD

HIGH ALBEDO

VIS > 11 KM

TABLE B-2 SOLAR TRANSMISSION (τ)

				COS Z														
LOW	MID	HIGH		.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	
CLR	CLR	CLR	CLR	.59	.63	.66	.68	.71	.73	.75	.76	.78	.79	.80	.80	.80	.80	
SCT	SCT	SCT	SCT	.55	.58	.62	.65	.70	.73	.74	.76	.77	.78	.79	.80	.80	.80	
BKN	BKN	BKN	BKN	.52	.56	.59	.63	.66	.68	.71	.73	.76	.77	.78	.78	.78	.78	
OVC	OVC	OVC	OVC	.50	.54	.57	.60	.63	.66	.68	.70	.72	.73	.76	.77	.77	.77	
CLR	SCT	CLR	SCT	.47	.51	.55	.61	.64	.67	.69	.71	.73	.74	.75	.77	.77	.77	
BKN	BKN	BKN	BKN	.46	.50	.54	.57	.61	.64	.66	.69	.71	.74	.75	.75	.75	.75	
OVC	OVC	OVC	OVC	.46	.49	.53	.56	.59	.62	.64	.67	.69	.70	.72	.74	.74	.74	
CLR	BKN	CLR	SCT	.47	.51	.55	.58	.61	.64	.67	.69	.71	.73	.74	.75	.77	.77	
SCT	SCT	BKN	BKN	.46	.50	.54	.57	.61	.64	.66	.69	.71	.74	.75	.77	.77	.77	
BKN	BKN	OVC	OVC	.43	.47	.51	.55	.58	.61	.64	.67	.69	.70	.72	.74	.74	.74	
OVC	OVC	OVC	OVC	.43	.47	.51	.55	.58	.61	.64	.67	.69	.70	.72	.74	.74	.74	
CLR	CLR	OVC	OVC	.40	.44	.47	.51	.54	.57	.59	.62	.64	.66	.67	.69	.70	.70	.70
SCT	SCT	CLR	CLR	.39	.43	.47	.50	.53	.56	.59	.61	.64	.65	.67	.69	.70	.70	.70
BKN	BKN	SCT	SCT	.37	.41	.45	.48	.51	.55	.58	.60	.62	.64	.66	.68	.68	.68	.68
OVC	OVC	OVC	OVC	.36	.40	.43	.46	.50	.53	.55	.58	.60	.62	.64	.66	.67	.67	.67
CLR	OVC	CLR	SCT	.27	.29	.31	.34	.36	.38	.40	.42	.43	.45	.46	.47	.48	.49	.49
SCT	SCT	CLR	CLR	.26	.29	.31	.33	.33	.35	.37	.39	.41	.42	.43	.45	.46	.47	.47
BKN	BKN	SCT	SCT	.25	.27	.30	.32	.34	.35	.37	.39	.41	.43	.44	.45	.46	.47	.47
OVC	OVC	OVC	OVC	.25	.27	.29	.31	.33	.35	.37	.39	.41	.43	.44	.45	.46	.47	.47
SCT	SCT	CLR	CLR	.44	.48	.52	.56	.59	.62	.65	.68	.70	.72	.74	.75	.77	.78	.78
BKN	BKN	SCT	SCT	.43	.47	.51	.55	.58	.62	.64	.67	.69	.72	.73	.75	.77	.78	.78
OVC	OVC	OVC	OVC	.40	.44	.48	.52	.56	.60	.63	.65	.67	.69	.71	.74	.76	.76	.76
SCT	SCT	CLR	CLR	.39	.43	.47	.50	.54	.57	.60	.63	.65	.67	.69	.71	.75	.75	.75
BKN	BKN	SCT	SCT	.36	.39	.43	.47	.50	.54	.57	.60	.63	.65	.67	.69	.73	.73	.73
OVC	OVC	OVC	OVC	.36	.39	.43	.47	.50	.54	.57	.60	.63	.65	.67	.69	.66	.66	.66
SCT	SCT	CLR	CLR	.40	.44	.48	.51	.55	.58	.61	.64	.66	.68	.70	.72	.73	.76	.76
BKN	BKN	SCT	SCT	.39	.43	.47	.51	.54	.57	.61	.63	.66	.68	.70	.72	.73	.76	.76
OVC	OVC	OVC	OVC	.36	.39	.43	.47	.50	.54	.57	.60	.63	.66	.68	.70	.73	.74	.74
SCT	SCT	CLR	CLR	.34	.38	.41	.45	.48	.51	.54	.57	.59	.61	.63	.65	.66	.69	.69
BKN	BKN	SCT	SCT	.33	.37	.41	.44	.48	.51	.54	.57	.59	.61	.63	.65	.66	.68	.68
OVC	OVC	OVC	OVC	.31	.35	.38	.42	.46	.49	.52	.55	.58	.60	.62	.63	.64	.67	.67
SCT	SCT	CLR	CLR	.23	.25	.28	.30	.32	.34	.36	.38	.40	.42	.43	.45	.46	.48	.48
BKN	BKN	SCT	SCT	.22	.25	.27	.30	.32	.34	.36	.38	.40	.42	.43	.45	.46	.48	.48
OVC	OVC	OVC	OVC	.21	.24	.26	.28	.31	.33	.35	.37	.39	.41	.42	.44	.45	.46	.46

TABLE B-2 SOLAR TRANSMISSION (τ)
 STATE 1-2-2 THIN HIGH CLOUD
 HIGH ALBEDO
 VIS < 11 KM

		COS Z			
LOW	MID	HIGH	CLR	CLR	CLR
BKN	SCT	BKN	SCT	BKN	OVC
.10	.15	.20	.25	.30	.35
.05	.10	.15	.20	.25	.30
.44	.48	.51	.54	.57	.60
.43	.47	.50	.53	.56	.59
.40	.44	.48	.51	.54	.57
.36	.39	.43	.46	.49	.52
.36	.39	.43	.46	.49	.52
.40	.44	.47	.50	.53	.56
.39	.43	.46	.50	.53	.56
.37	.41	.44	.48	.51	.54
.36	.39	.43	.46	.49	.52
.36	.39	.43	.46	.49	.52
.36	.40	.44	.47	.50	.53
.35	.39	.43	.46	.49	.52
.35	.39	.43	.46	.49	.52
.31	.35	.39	.43	.46	.49
.31	.35	.39	.43	.46	.49
.21	.24	.26	.28	.30	.32
.21	.24	.26	.28	.30	.32
.20	.22	.24	.27	.29	.31
.20	.22	.24	.26	.28	.30
.21	.24	.26	.28	.30	.32
.21	.24	.26	.28	.30	.32
.20	.22	.24	.27	.29	.31
.20	.22	.24	.26	.28	.30
.26	.29	.32	.35	.38	.41
.25	.29	.32	.35	.38	.40
.24	.27	.30	.33	.36	.39
.23	.26	.29	.32	.35	.38
.26	.29	.32	.35	.38	.41
.25	.29	.32	.35	.38	.41
.24	.27	.30	.33	.36	.39
.23	.26	.29	.32	.35	.38
.24	.27	.30	.33	.36	.38
.23	.27	.30	.33	.36	.39
.22	.25	.28	.31	.34	.37
.22	.25	.28	.31	.34	.37
.21	.24	.27	.30	.33	.36
.20	.23	.26	.29	.32	.35
.19	.22	.25	.28	.31	.34
.19	.22	.24	.27	.30	.33
.15	.17	.19	.21	.23	.25
.15	.17	.19	.21	.22	.24
.14	.16	.18	.20	.22	.24
.14	.16	.17	.19	.21	.23

TABLE B-2 SOLAR TRANSMISSION (1)

**THIN HIGH CLOUD
HIGH ALBEDO
VIS < 11 KM**

LGN	MID	HIGH	COS Z	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	
CLR	CLR	CLR	.45	.49	.54	.58	.61	.65	.68	.71	.73	.75	.77	.78	.79	.80	.80
			.40	.44	.48	.52	.56	.60	.63	.66	.69	.71	.73	.75	.76	.76	
			.36	.40	.43	.47	.50	.54	.57	.59	.62	.64	.66	.67	.68	.69	
			.28	.31	.33	.36	.39	.42	.45	.48	.50	.52	.54	.56	.58	.59	
CLR	SCT	CLR	.38	.42	.46	.50	.54	.57	.60	.63	.66	.68	.70	.71	.73	.74	.75
			.34	.38	.42	.46	.50	.53	.57	.60	.62	.65	.67	.69	.72	.73	.73
			.31	.35	.38	.42	.45	.48	.51	.54	.56	.59	.61	.62	.63	.66	.66
			.24	.27	.30	.33	.36	.39	.41	.44	.46	.48	.51	.52	.54	.56	.58
CLR	BKN	CLR	.30	.34	.37	.40	.43	.46	.49	.52	.54	.56	.57	.59	.60	.61	.61
			.27	.31	.34	.37	.40	.43	.46	.49	.51	.54	.55	.57	.58	.60	.60
			.25	.28	.31	.34	.37	.40	.42	.45	.47	.49	.51	.52	.53	.54	.55
			.20	.22	.25	.27	.30	.32	.35	.37	.39	.41	.43	.45	.46	.47	.49
CLR	OVC	CLR	.18	.20	.21	.23	.24	.26	.27	.28	.29	.30	.31	.32	.33	.34	.34
			.17	.18	.20	.21	.23	.25	.26	.27	.28	.30	.31	.32	.33	.33	.34
			.15	.17	.19	.20	.22	.23	.24	.26	.27	.28	.30	.30	.31	.31	.31
			.13	.14	.16	.17	.18	.20	.21	.22	.23	.25	.26	.27	.28	.29	.29
SCT	CLR	CLR	.37	.41	.45	.49	.52	.56	.59	.62	.65	.67	.69	.71	.72	.73	.75
			.33	.37	.41	.45	.48	.52	.55	.59	.61	.64	.66	.68	.70	.73	.75
			.30	.33	.37	.40	.44	.47	.50	.53	.55	.58	.60	.62	.63	.66	.66
			.23	.26	.29	.32	.35	.37	.40	.43	.45	.48	.50	.52	.54	.56	.58
SCT	SCT	CLR	.32	.36	.39	.43	.47	.50	.53	.56	.59	.61	.63	.65	.67	.68	.69
			.29	.32	.36	.40	.43	.47	.50	.53	.56	.59	.61	.63	.65	.67	.68
			.26	.30	.33	.36	.39	.42	.45	.48	.51	.53	.55	.57	.59	.60	.61
			.21	.26	.29	.32	.35	.37	.40	.43	.45	.48	.50	.52	.54	.56	.57
SCT	SCT	CLR	.26	.29	.32	.35	.38	.41	.44	.46	.49	.51	.53	.54	.56	.57	.59
			.23	.26	.30	.33	.36	.39	.42	.44	.47	.49	.51	.53	.54	.57	.58
			.21	.24	.27	.30	.33	.36	.38	.41	.43	.45	.47	.48	.50	.52	.52
			.17	.20	.22	.24	.27	.29	.32	.34	.36	.38	.40	.42	.43	.46	.47
SCT	OVC	CLR	.16	.17	.19	.21	.22	.23	.25	.26	.27	.28	.29	.30	.31	.32	.33
			.15	.16	.18	.19	.21	.22	.24	.25	.27	.28	.29	.30	.31	.32	.33
			.14	.15	.17	.18	.20	.21	.22	.24	.25	.26	.27	.28	.29	.30	.30
			.11	.13	.14	.15	.17	.18	.19	.21	.22	.23	.24	.25	.26	.27	.28

STATE 2-1-1

THICK HIGH CLOUD
LOW ALBEDO
VIS => 11 KMTABLE B-2 SOLAR TRANSMISSION (τ)

CLOUDS				CLOUDS																			
LOW	MID	HIGH		LOW	MID	HIGH																	
BKN	CLR	SCT		BKN	CLR	SCT		BKN	CLR	SCT		BKN	CLR	SCT		BKN	CLR	SCT		BKN	CLR	SCT	
.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	.05	.10	.15	.20	
.30	.33	.36	.39	.42	.45	.48	.50	.52	.54	.55	.57	.58	.59	.60	.60	.61	.61	.61	.27	.30	.33	.36	
.25	.27	.30	.33	.36	.39	.42	.45	.47	.49	.50	.52	.54	.55	.59	.59	.60	.60	.60	.19	.22	.24	.26	
.17	.19	.20	.22	.24	.26	.29	.31	.33	.36	.38	.40	.42	.43	.45	.46	.47	.48	.48	.06	.07	.08	.09	
.26	.29	.32	.35	.38	.41	.43	.46	.48	.50	.51	.53	.54	.55	.56	.57	.58	.58	.58	.07	.08	.09	.09	
.24	.27	.30	.33	.36	.38	.41	.43	.46	.48	.50	.51	.53	.54	.55	.55	.56	.57	.57	.09	.11	.12	.13	
.22	.25	.27	.30	.33	.35	.38	.40	.42	.44	.46	.47	.48	.50	.52	.53	.54	.54	.54	.15	.17	.19	.21	
.17	.20	.22	.24	.26	.29	.31	.33	.35	.37	.39	.41	.42	.43	.44	.45	.46	.46	.46	.06	.07	.08	.09	
.22	.24	.27	.29	.32	.34	.37	.39	.41	.42	.44	.45	.46	.47	.48	.48	.49	.49	.49	.09	.11	.13	.15	
.20	.22	.25	.27	.30	.32	.35	.37	.39	.41	.42	.44	.45	.46	.47	.48	.48	.48	.48	.07	.09	.11	.13	
.18	.21	.23	.25	.28	.30	.32	.34	.36	.38	.39	.41	.42	.43	.44	.44	.44	.44	.44	.06	.08	.10	.12	
.15	.17	.19	.21	.23	.25	.27	.29	.31	.32	.34	.35	.37	.38	.39	.39	.40	.40	.40	.05	.07	.09	.11	
.14	.15	.17	.18	.19	.20	.22	.23	.24	.25	.26	.27	.27	.28	.28	.29	.29	.29	.29	.06	.08	.10	.12	
.13	.14	.16	.17	.18	.19	.20	.21	.22	.23	.24	.25	.26	.27	.27	.28	.28	.28	.28	.05	.07	.09	.11	
.12	.13	.15	.16	.17	.18	.19	.20	.21	.22	.23	.24	.25	.26	.26	.26	.26	.26	.26	.05	.07	.09	.11	
.10	.11	.12	.13	.15	.16	.17	.18	.19	.20	.21	.22	.23	.24	.24	.24	.24	.24	.24	.04	.06	.08	.10	
.15	.17	.19	.20	.22	.23	.24	.25	.26	.27	.28	.29	.30	.31	.32	.33	.33	.33	.33	.09	.11	.13	.15	
.14	.15	.17	.18	.19	.20	.22	.23	.24	.25	.26	.27	.28	.29	.30	.31	.32	.32	.32	.08	.10	.12	.14	
.13	.14	.16	.17	.18	.19	.20	.21	.22	.23	.24	.25	.26	.27	.28	.29	.30	.30	.30	.07	.09	.11	.13	
.12	.13	.15	.16	.17	.18	.19	.20	.21	.22	.23	.24	.25	.26	.26	.26	.26	.26	.26	.06	.08	.10	.12	
.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	.21	.22	.23	.24	.24	.24	.24	.24	.24	.05	.07	.09	.11	
.10	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	.21	.22	.23	.24	.24	.24	.24	.24	.04	.06	.08	.10	
.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	.21	.22	.23	.24	.24	.24	.24	.03	.05	.07	.09	
.08	.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	.21	.22	.23	.23	.23	.23	.02	.04	.06	.08	
.07	.08	.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	.21	.22	.22	.22	.22	.01	.03	.05	.07	
.06	.07	.08	.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	.21	.22	.22	.22	.00	.02	.04	.06	
.05	.06	.07	.08	.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	.21	.22	.22	.00	.02	.04	.06	

STATE 2-1-1

THICK HIGH CLOUD
LOW ALBEDO
VIS > 11 KMTABLE B-2 SOLAR TRANSMISSION (τ)

				COS Z				
LOW	MID	HIGH			.40	.45	.50	.55
CLR	CLR	CLR	CLR	.52	.56	.59	.62	.64
.05	.10	.15	.20	.25	.30	.35	.40	.45
CLR	SCT	BKN	OVC	.49	.52	.55	.58	.61
.38	.42	.45	.48	.47	.50	.52	.55	.57
.34	.37	.40	.44	.37	.40	.42	.45	.47
.30	.34	.37	.40	.34	.37	.40	.42	.45
.24	.26	.29	.29	.26	.28	.31	.34	.36
CLR	SCT	BKN	OVC	.43	.46	.50	.53	.56
.32	.36	.40	.43	.36	.40	.43	.46	.49
.29	.33	.36	.40	.36	.39	.42	.45	.48
.27	.30	.33	.36	.30	.32	.35	.38	.40
.21	.23	.26	.28	.22	.24	.26	.29	.31
CLR	SCT	BKN	OVC	.43	.46	.50	.53	.56
.26	.29	.32	.35	.25	.38	.41	.43	.46
.24	.26	.29	.32	.20	.32	.35	.38	.40
.22	.24	.27	.30	.24	.26	.29	.31	.33
.17	.20	.22	.24	.17	.20	.22	.24	.26
CLR	SCT	BKN	OVC	.43	.46	.50	.53	.56
.16	.17	.19	.20	.12	.22	.23	.24	.25
.15	.16	.18	.19	.10	.21	.22	.23	.24
.14	.15	.16	.18	.10	.19	.21	.22	.23
.11	.13	.14	.15	.10	.16	.18	.19	.20
CLR	SCT	BKN	OVC	.42	.45	.49	.52	.55
.31	.35	.38	.42	.35	.39	.42	.45	.49
.29	.32	.35	.39	.30	.35	.38	.41	.43
.25	.29	.32	.35	.25	.28	.30	.33	.36
.20	.23	.25	.28	.18	.23	.25	.28	.30
SCT	CLR	SCT	BKN	.42	.45	.49	.52	.55
.27	.31	.34	.37	.21	.34	.37	.41	.44
.25	.28	.31	.35	.18	.31	.34	.37	.40
.23	.26	.28	.31	.18	.21	.24	.26	.28
.19	.21	.24	.26	.15	.19	.22	.24	.26
.16	.17	.19	.22	.12	.15	.18	.20	.22
SCT	SCT	BKN	OVC	.31	.34	.37	.41	.44
.22	.25	.28	.31	.18	.21	.24	.27	.30
.20	.23	.26	.29	.18	.21	.24	.27	.29
.19	.21	.24	.26	.15	.18	.20	.22	.24
.15	.17	.19	.22	.12	.15	.18	.20	.22
SCT	CLR	SCT	BKN	.17	.19	.20	.21	.23
.14	.15	.16	.17	.10	.12	.14	.16	.18
.13	.14	.15	.16	.10	.12	.14	.16	.18
.12	.13	.14	.15	.10	.12	.14	.16	.18
.10	.11	.13	.14	.10	.12	.14	.16	.18

				COS Z														
LOW	MID	HIGH		.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	
BKN CLR	.26	.29	.32	.35	.37	.40	.42	.45	.47	.49	.51	.52	.54	.55	.56	.57	.57	
SCT	.23	.26	.29	.32	.35	.38	.40	.43	.45	.47	.49	.51	.52	.53	.54	.55	.56	
BWN	.21	.24	.27	.29	.32	.34	.37	.39	.41	.43	.45	.46	.48	.49	.50	.50	.50	
OVC	.17	.19	.21	.23	.26	.28	.30	.32	.34	.36	.38	.40	.41	.44	.44	.45	.45	
BKN CLR	.23	.26	.28	.31	.34	.36	.39	.41	.43	.45	.47	.49	.50	.51	.52	.54	.54	
SCT	.21	.24	.26	.29	.32	.34	.37	.39	.42	.44	.46	.47	.49	.50	.51	.53	.53	
BWN	.19	.22	.24	.27	.29	.31	.34	.36	.38	.40	.42	.43	.45	.46	.47	.48	.48	
OVC	.17	.19	.21	.22	.24	.26	.28	.30	.32	.34	.36	.38	.39	.40	.41	.43	.43	
BKN CLR	.19	.21	.24	.26	.29	.31	.33	.35	.37	.39	.40	.42	.43	.44	.45	.46	.46	
SCT	.17	.20	.22	.24	.27	.29	.31	.34	.36	.37	.39	.41	.42	.43	.44	.45	.45	
BWN	.16	.18	.20	.23	.25	.27	.29	.31	.33	.35	.36	.38	.39	.40	.41	.41	.41	
OVC	.13	.15	.17	.19	.21	.22	.24	.26	.28	.30	.31	.33	.34	.35	.36	.37	.37	
BKN CLR	.19	.21	.24	.26	.29	.31	.33	.35	.37	.39	.40	.42	.43	.44	.45	.46	.46	
SCT	.17	.20	.22	.24	.27	.29	.31	.34	.36	.37	.39	.41	.42	.43	.44	.45	.45	
BWN	.16	.18	.20	.23	.25	.27	.29	.31	.33	.35	.36	.38	.39	.40	.41	.41	.41	
OVC	.13	.15	.17	.19	.21	.22	.24	.26	.28	.30	.31	.33	.34	.35	.36	.37	.37	
BKN CLR	.12	.14	.15	.16	.17	.19	.20	.21	.22	.23	.24	.25	.25	.26	.27	.27	.27	
SCT	.11	.13	.14	.15	.16	.17	.18	.19	.20	.21	.22	.23	.24	.25	.26	.27	.27	
BWN	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	.21	.22	.23	.24	.25	.25	.25	
OVC	.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	.21	.22	.23	.23	.23	
BKN CLR	.12	.14	.15	.16	.17	.19	.20	.21	.22	.23	.24	.25	.25	.26	.27	.27	.27	
SCT	.11	.13	.14	.15	.16	.17	.18	.19	.20	.21	.22	.23	.24	.25	.26	.27	.27	
BWN	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	.21	.22	.23	.24	.25	.25	.25	
OVC	.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	.21	.22	.23	.23	.23	
BKN CLR	.13	.15	.17	.18	.20	.22	.23	.24	.26	.27	.28	.29	.30	.31	.32	.33	.34	
SCT	.12	.14	.15	.16	.17	.19	.20	.22	.24	.25	.26	.28	.29	.30	.31	.32	.33	
BWN	.11	.13	.14	.15	.16	.18	.19	.21	.22	.23	.25	.26	.27	.28	.29	.30	.31	
OVC	.09	.10	.11	.12	.13	.15	.16	.18	.19	.20	.22	.23	.24	.25	.26	.26	.26	
BKN CLR	.13	.15	.17	.18	.20	.22	.23	.24	.26	.27	.28	.29	.30	.31	.32	.33	.34	
SCT	.12	.14	.15	.16	.17	.19	.20	.21	.22	.24	.25	.26	.28	.29	.30	.31	.32	
BWN	.11	.13	.14	.15	.16	.18	.19	.21	.22	.23	.25	.26	.27	.28	.29	.30	.31	
OVC	.09	.10	.11	.12	.13	.15	.16	.18	.19	.20	.22	.23	.24	.25	.26	.26	.26	
BKN CLR	.12	.14	.15	.16	.17	.19	.20	.21	.22	.23	.24	.25	.26	.27	.27	.27	.27	
SCT	.11	.13	.14	.15	.16	.18	.19	.21	.22	.23	.25	.26	.28	.29	.30	.31	.32	
BWN	.10	.12	.13	.14	.15	.16	.18	.19	.20	.21	.23	.24	.26	.27	.28	.29	.30	
OVC	.08	.10	.11	.12	.13	.14	.15	.17	.18	.19	.20	.22	.23	.24	.25	.26	.26	
BKN CLR	.12	.14	.15	.16	.17	.19	.20	.21	.22	.23	.24	.25	.26	.27	.27	.27	.27	
SCT	.11	.13	.14	.15	.16	.18	.19	.21	.22	.23	.25	.26	.28	.29	.30	.31	.32	
BWN	.10	.12	.13	.14	.15	.16	.18	.19	.20	.21	.23	.24	.26	.27	.28	.29	.30	
OVC	.07	.08	.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	.21	.22	.22	
BKN CLR	.07	.08	.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	.21	.22	.22	
SCT	.07	.08	.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	.21	.22	.22	
BWN	.06	.07	.08	.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	.21	.21	
OVC	.05	.06	.07	.08	.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	.20	

STATE 2-1-2

THICK HIGH CLOUD
LOW ALBEDO
VIS < 11 KMTABLE B-2 SOLAR TRANSMISSION (τ)

TABLE B-2 SOLAR TRANSMISSION (τ)

THICK HIGH CLOUD
HIGH ALBEDO
VIS => 11 KM

				COS Z												
LOW	MID	HIGH			.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95
BKN CLR	.44	.48	.52	.55	.59	.61	.64	.66	.68	.70	.72	.73	.74	.75	.76	.76
BKN SCT	.40	.44	.48	.52	.55	.59	.61	.64	.66	.68	.70	.72	.73	.74	.75	.75
BKN BKN	.37	.41	.45	.48	.52	.55	.57	.60	.62	.64	.66	.68	.69	.70	.71	.71
BKN OVC	.30	.33	.37	.40	.43	.46	.49	.52	.55	.57	.59	.61	.63	.64	.65	.66
BKN SCT CLR	.40	.44	.48	.51	.55	.58	.60	.63	.65	.67	.69	.70	.71	.72	.73	.74
BKN SCT	.37	.41	.45	.48	.52	.55	.58	.61	.63	.65	.67	.69	.70	.71	.72	.73
BKN BKN	.34	.38	.41	.45	.48	.51	.54	.57	.59	.62	.63	.65	.66	.67	.68	.69
BKN OVC	.28	.31	.34	.37	.41	.44	.47	.50	.52	.55	.57	.59	.60	.62	.63	.64
BKN BKN CLR	.34	.38	.42	.45	.48	.51	.54	.57	.59	.61	.62	.64	.65	.66	.67	.67
BKN BKN	.32	.35	.39	.43	.46	.49	.52	.55	.57	.59	.61	.63	.64	.65	.66	.67
BKN OVC	.29	.33	.36	.40	.43	.46	.49	.51	.54	.56	.58	.59	.60	.61	.62	.63
BKN OVC CLR	.23	.26	.28	.31	.33	.35	.37	.39	.41	.42	.44	.45	.46	.47	.47	.48
BKN OVC SCT	.22	.24	.27	.29	.31	.34	.36	.38	.40	.41	.43	.44	.45	.46	.47	.48
BKN BKN	.20	.23	.25	.27	.30	.32	.34	.36	.38	.39	.41	.42	.43	.44	.45	.45
BKN OVC	.17	.19	.21	.24	.26	.28	.30	.32	.34	.35	.37	.38	.39	.40	.41	.42
OVC CLR CLR	.26	.29	.32	.35	.38	.41	.43	.45	.47	.49	.50	.52	.53	.54	.55	.57
OVC CLR	.24	.27	.30	.33	.36	.39	.41	.44	.46	.48	.49	.51	.52	.53	.54	.56
OVC BKN CLR	.22	.25	.28	.31	.34	.36	.39	.41	.43	.45	.47	.48	.49	.50	.51	.52
OVC BKN	.20	.23	.26	.29	.32	.34	.36	.39	.41	.43	.45	.46	.48	.49	.50	.53
OVC BKN	.18	.21	.24	.26	.29	.31	.34	.36	.38	.40	.42	.44	.45	.46	.47	.49
OVC OVC	.16	.21	.23	.26	.29	.31	.34	.36	.38	.40	.42	.44	.45	.46	.47	.48
OVC SCT CLR	.24	.27	.30	.33	.36	.38	.41	.43	.45	.47	.49	.50	.51	.52	.53	.55
OVC SCT	.22	.25	.28	.31	.34	.37	.39	.42	.44	.46	.47	.49	.50	.51	.52	.55
OVC BKN	.20	.23	.26	.29	.32	.34	.37	.39	.41	.43	.45	.46	.48	.49	.50	.56
OVC BKN	.18	.21	.24	.26	.29	.31	.34	.36	.38	.40	.42	.44	.45	.46	.47	.52
OVC OVC	.17	.19	.22	.25	.27	.30	.32	.34	.37	.39	.40	.42	.44	.45	.46	.49
OVC BKN CLR	.21	.24	.27	.29	.32	.35	.37	.39	.41	.43	.44	.46	.47	.48	.49	.50
OVC BKN SCT	.19	.22	.25	.28	.31	.33	.36	.38	.40	.42	.43	.45	.46	.47	.48	.50
OVC BKN BKN	.18	.21	.24	.26	.29	.31	.34	.36	.38	.39	.41	.43	.44	.45	.46	.47
OVC BKN OVC	.15	.17	.20	.22	.25	.27	.30	.32	.34	.37	.39	.40	.41	.42	.43	.44
OVC OVC CLR	.15	.17	.19	.21	.23	.24	.26	.28	.29	.30	.32	.33	.34	.35	.36	.37
OVC OVC SCT	.14	.16	.18	.20	.22	.24	.25	.27	.28	.30	.31	.32	.33	.34	.35	.36
OVC BKN	.13	.15	.17	.19	.21	.22	.24	.26	.27	.28	.30	.31	.32	.33	.34	.34
OVC OVC	.11	.13	.14	.16	.18	.20	.21	.23	.24	.26	.27	.28	.29	.30	.31	.32

				COS Z																	
LOW	MID	HIGH	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95
CLR	CLR	CLR	.48	.52	.56	.59	.63	.66	.68	.71	.73	.75	.76	.78	.79	.79	.80	.80	.80	.80	.80
SCT	SCT	SCT	.44	.48	.52	.56	.59	.62	.65	.68	.71	.73	.74	.76	.77	.78	.79	.79	.79	.79	.79
BKN	BKN	BKN	.40	.44	.48	.51	.55	.58	.61	.64	.66	.68	.70	.71	.73	.74	.74	.74	.74	.74	.74
OVC	OVC	OVC	.32	.36	.39	.42	.45	.49	.52	.55	.57	.60	.62	.64	.66	.67	.68	.68	.68	.68	.68
CLR	SCT	CLR	.43	.47	.51	.55	.58	.61	.64	.67	.69	.71	.73	.74	.75	.76	.77	.77	.77	.77	.77
SCT	SCT	SCT	.40	.44	.48	.51	.55	.58	.61	.64	.67	.69	.71	.73	.74	.75	.76	.76	.76	.76	.76
BKN	BKN	BKN	.36	.40	.44	.47	.51	.54	.57	.60	.63	.65	.67	.68	.70	.71	.72	.72	.72	.72	.72
OVC	OVC	OVC	.30	.33	.36	.39	.43	.46	.49	.52	.55	.57	.60	.62	.63	.65	.66	.66	.66	.66	.66
CLR	BKN	CLR	.37	.40	.44	.47	.51	.54	.57	.59	.62	.64	.66	.67	.68	.69	.70	.70	.70	.70	.70
SCT	SCT	SCT	.34	.37	.41	.45	.48	.51	.54	.57	.60	.62	.64	.66	.67	.68	.69	.69	.69	.69	.69
BKN	BKN	BKN	.31	.35	.38	.41	.45	.48	.51	.54	.56	.58	.60	.62	.63	.64	.65	.65	.65	.65	.65
OVC	OVC	OVC	.26	.29	.32	.35	.38	.41	.44	.47	.49	.52	.54	.56	.57	.59	.60	.60	.60	.60	.60
CLR	OVC	CLR	.24	.27	.29	.31	.34	.36	.38	.40	.42	.43	.45	.46	.47	.48	.49	.49	.49	.49	.49
SCT	SCT	SCT	.23	.25	.27	.30	.32	.34	.36	.38	.40	.42	.44	.45	.46	.47	.48	.48	.48	.48	.48
BKN	BKN	BKN	.21	.23	.26	.28	.30	.32	.34	.36	.38	.40	.42	.43	.44	.45	.46	.46	.46	.46	.46
OVC	OVC	OVC	.18	.20	.22	.24	.26	.28	.30	.32	.34	.36	.38	.39	.40	.41	.42	.43	.43	.43	.43
SCT	CLR	CLR	.44	.48	.52	.56	.59	.62	.65	.68	.70	.72	.74	.75	.76	.77	.78	.78	.78	.78	.78
SCT	SCT	SCT	.40	.44	.48	.52	.56	.59	.62	.65	.68	.70	.72	.73	.75	.76	.77	.77	.77	.77	.77
BKN	BKN	BKN	.37	.41	.45	.48	.52	.55	.58	.61	.63	.66	.67	.69	.70	.72	.73	.73	.73	.73	.73
OVC	OVC	OVC	.30	.33	.36	.40	.43	.46	.49	.52	.55	.58	.60	.62	.64	.65	.66	.67	.67	.67	.67
SCT	SCT	CLR	.40	.44	.48	.51	.55	.58	.61	.64	.66	.68	.70	.72	.73	.74	.75	.76	.76	.76	.76
SCT	SCT	SCT	.37	.41	.44	.48	.52	.55	.58	.61	.64	.67	.69	.70	.72	.73	.74	.75	.75	.75	.75
BKN	BKN	BKN	.34	.37	.41	.45	.48	.51	.55	.57	.60	.62	.65	.66	.68	.69	.70	.71	.71	.71	.71
OVC	OVC	OVC	.27	.31	.34	.37	.40	.44	.47	.50	.53	.55	.58	.60	.61	.63	.64	.65	.65	.65	.65
SCT	BKN	CLR	.34	.38	.41	.45	.48	.51	.54	.57	.59	.61	.63	.65	.66	.67	.68	.69	.69	.69	.69
SCT	SCT	SCT	.31	.35	.39	.42	.46	.49	.52	.55	.57	.60	.62	.64	.65	.66	.67	.68	.68	.68	.68
BKN	BKN	BKN	.29	.32	.36	.39	.43	.46	.49	.51	.54	.56	.58	.60	.61	.63	.64	.64	.64	.64	.64
OVC	OVC	OVC	.24	.27	.30	.33	.36	.39	.42	.45	.47	.50	.52	.54	.56	.57	.58	.59	.59	.59	.59
SCT	OVC	CLR	.23	.25	.28	.30	.32	.34	.36	.38	.40	.42	.43	.45	.46	.47	.48	.48	.48	.48	.48
SCT	SCT	SCT	.21	.24	.26	.28	.31	.33	.35	.37	.39	.41	.43	.44	.45	.46	.47	.47	.47	.47	.47
BKN	BKN	BKN	.20	.22	.24	.27	.29	.31	.33	.35	.37	.39	.40	.42	.43	.44	.45	.45	.45	.45	.45
OVC	OVC	OVC	.17	.19	.21	.23	.25	.27	.29	.31	.33	.35	.37	.39	.41	.42	.42	.42	.42	.42	.42

STATE 2-2-2

TABLE B-2 SOLAR TRANSMISSION (τ)THICK HIGH CLOUD
HIGH ALBEDO
VIS < 11 KM

		COS Z			
LOW	MID	HIGH	CLR	SCT	BKN
.05	.10	.15	.20	.25	.30
BKN	CLR	CLR	CLR	SCT	BKN
.44	.48	.51	.54	.57	.60
.37	.40	.44	.48	.51	.55
.34	.37	.41	.44	.48	.51
.27	.30	.34	.37	.40	.43
BKN	CLR	CLR	CLR	SCT	BKN
.40	.44	.47	.50	.53	.56
.31	.37	.41	.44	.48	.51
.25	.28	.31	.34	.37	.40
BKN	CLR	CLR	CLR	SCT	BKN
.36	.40	.44	.47	.50	.53
.29	.32	.36	.39	.42	.45
.27	.30	.33	.36	.39	.42
.22	.25	.28	.31	.33	.36
BKN	CLR	CLR	CLR	SCT	BKN
.31	.35	.38	.41	.44	.47
.29	.32	.36	.39	.42	.45
.27	.30	.33	.36	.39	.42
.22	.25	.28	.31	.33	.36
BKN	CLR	CLR	CLR	SCT	BKN
.21	.24	.26	.28	.30	.32
.20	.22	.24	.27	.31	.33
.19	.21	.23	.25	.29	.31
.16	.18	.19	.21	.23	.25
BKN	CLR	CLR	CLR	SCT	BKN
.21	.24	.26	.28	.30	.32
.20	.22	.24	.27	.31	.33
.19	.21	.23	.25	.29	.31
.16	.18	.19	.21	.23	.25
BKN	CLR	CLR	CLR	SCT	BKN
.26	.29	.32	.35	.38	.41
.24	.27	.30	.33	.36	.39
.22	.25	.28	.31	.34	.37
.18	.21	.23	.26	.29	.32
BKN	CLR	CLR	CLR	SCT	BKN
.24	.27	.30	.33	.36	.39
.22	.25	.28	.31	.34	.37
.20	.23	.26	.29	.32	.35
.17	.19	.22	.25	.27	.30
BKN	CLR	CLR	CLR	SCT	BKN
.24	.27	.30	.33	.36	.39
.22	.25	.28	.31	.34	.37
.20	.23	.26	.29	.32	.35
.17	.19	.22	.25	.27	.30
BKN	CLR	CLR	CLR	SCT	BKN
.21	.24	.27	.30	.33	.36
.19	.22	.25	.28	.31	.34
.18	.21	.23	.26	.29	.32
.15	.17	.20	.23	.25	.27
BKN	CLR	CLR	CLR	SCT	BKN
.15	.17	.19	.21	.23	.25
.14	.16	.18	.20	.22	.24
.13	.15	.17	.19	.21	.23
.11	.13	.14	.16	.18	.20

TABLE B-2 SOLAR TRANSMISSION (τ)

THICK HIGH CLOUD
HIGH ALBEDO
VIS < 11 KM

TABLE B-3. RATIO OF SOLAR IRRADIANCE (W_{SUN}) ON A 10,000 FT GROUND SURFACE TO THAT WHICH WOULD HAVE BEEN OBSERVED IF THE GROUND WERE AT SEA LEVEL

COS Z										
.05	.15	.25	.35	.45	.55	.65	.75	.85	.95	
Ground Albedo = 0.15										
1.33	1.28	1.19	1.15	1.12	1.10	1.10	1.09	1.09	1.09	1.09
Ground Albedo = 0.80										
1.28	1.23	1.15	1.12	1.09	1.08	1.07	1.07	1.07	1.07	1.07

For ground surfaces with elevations less than 10,000 ft but more than 2,000 ft, interpolate for the corresponding elevation.

Sky Radiation (W_{SKY})

Fig. B-2 consists of nomograms that produce the clear sky radiation as a function of the forecast surface temperature and dewpoint. Four nomograms cover four different ranges of surface temperature.

These nomograms produce values of the clear sky irradiance for terrain near sea level. At high terrain elevation the irradiance values will differ slightly. The differences may be positive or negative and are a function of elevation, temperature, and dewpoint. Correction tables are under development. The approximate maximum values of the difference will be:

Terrain Elevation (km)	Maximum Difference (watts/m ²)	Approximate Percentage of Clear Sky Irradiance
1	5	2
2	11	4
3	15	5

Table B-4 provides corrections that are added to the clear sky irradiance values when cloud cover is forecast. The user enters the table with the amount and height above ground level of the two lowest cloud levels forecast to obtain the correction.

The values for the cloud correction in Table B-4 are strictly valid only for terrain near sea level. At high terrain elevations the cloud corrections will be slightly larger. However, the magnitude of the differences will be small (probably less than 10 watts/m²) and does not represent a major error. The largest error will occur with low clouds at high terrain elevations. Estimates of the maximum error incurred by using Table B-4 values at high terrain elevations are:

Terrain Elevation (km)	Maximum Error (watts/m ²)	Approximate Percentage of Total Cloudy Sky Irradiance
1	5	1.5
2	8	2.0
3	10	3.0

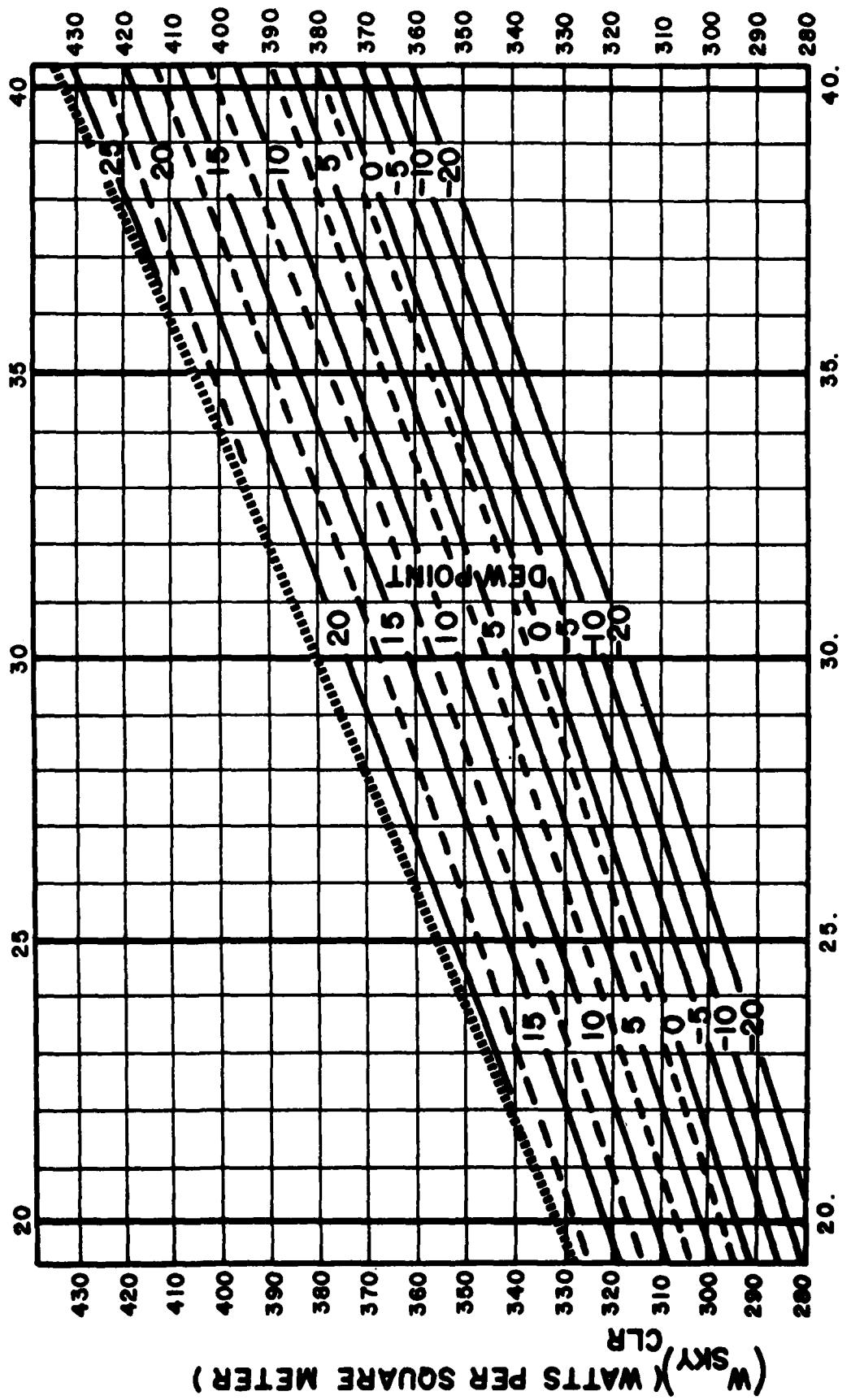


Fig. B-2. Sky Radiation (W_{SKY}) Nomogram
 20° to 40° C

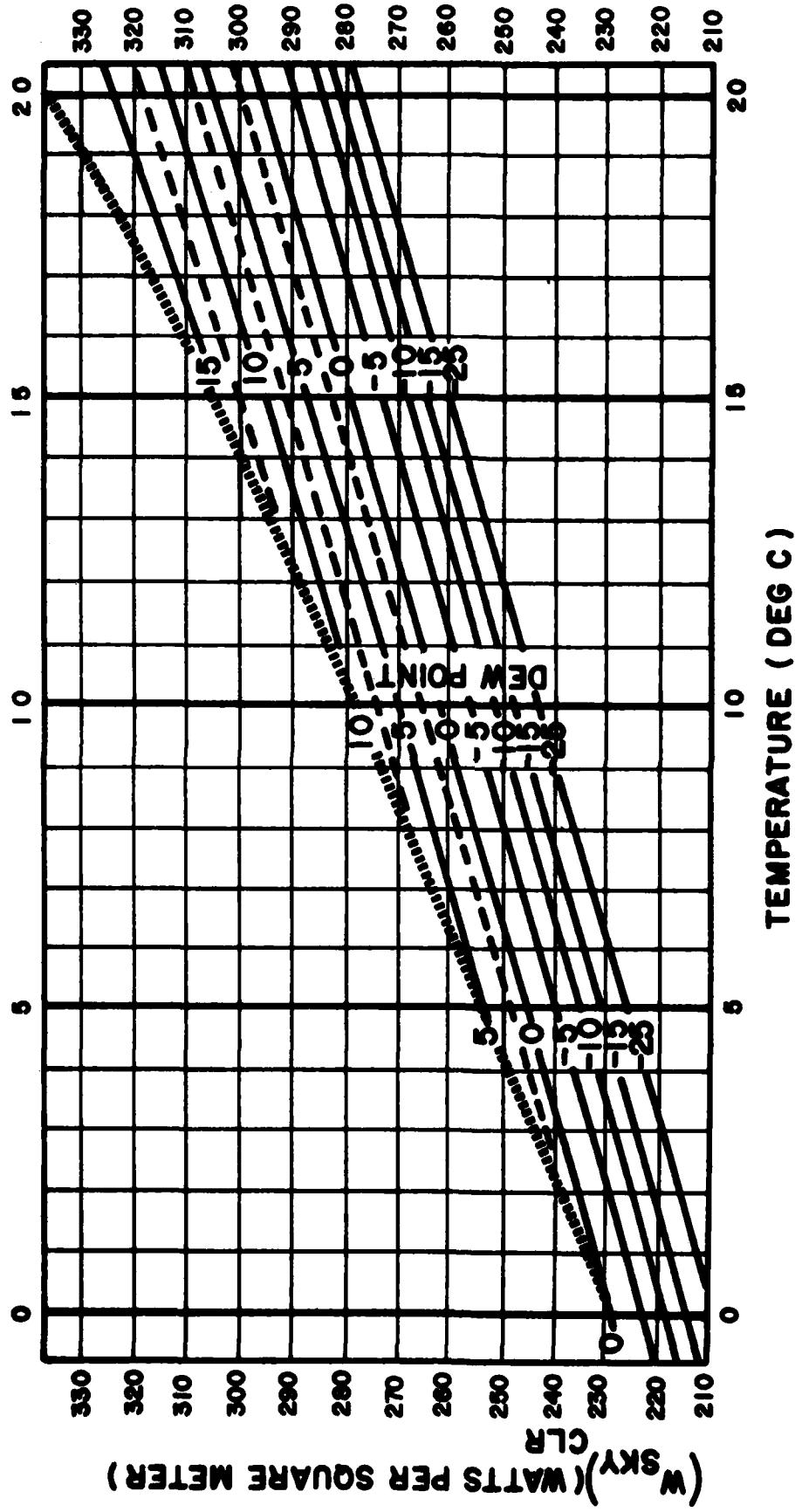


Fig. B-2. (Continued)
 0°C to 20°C

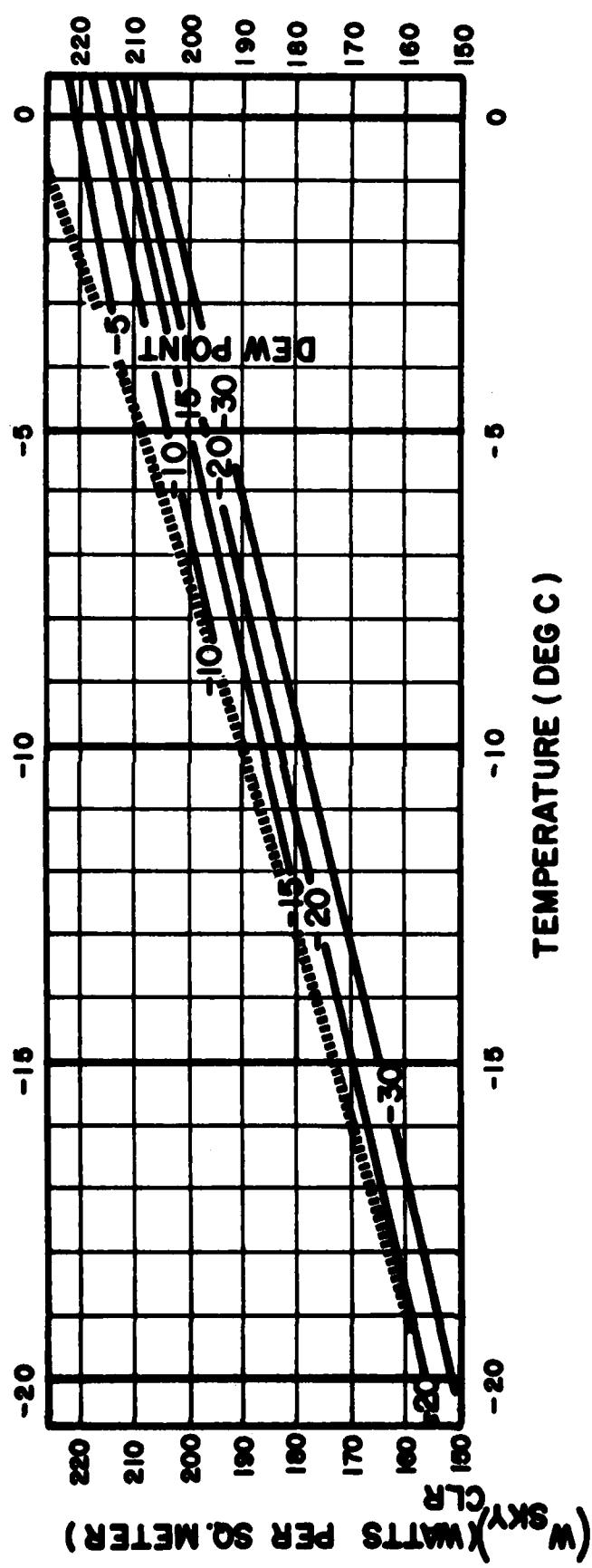


Fig. B-2_o (Continued)
 -20°C to 0°C

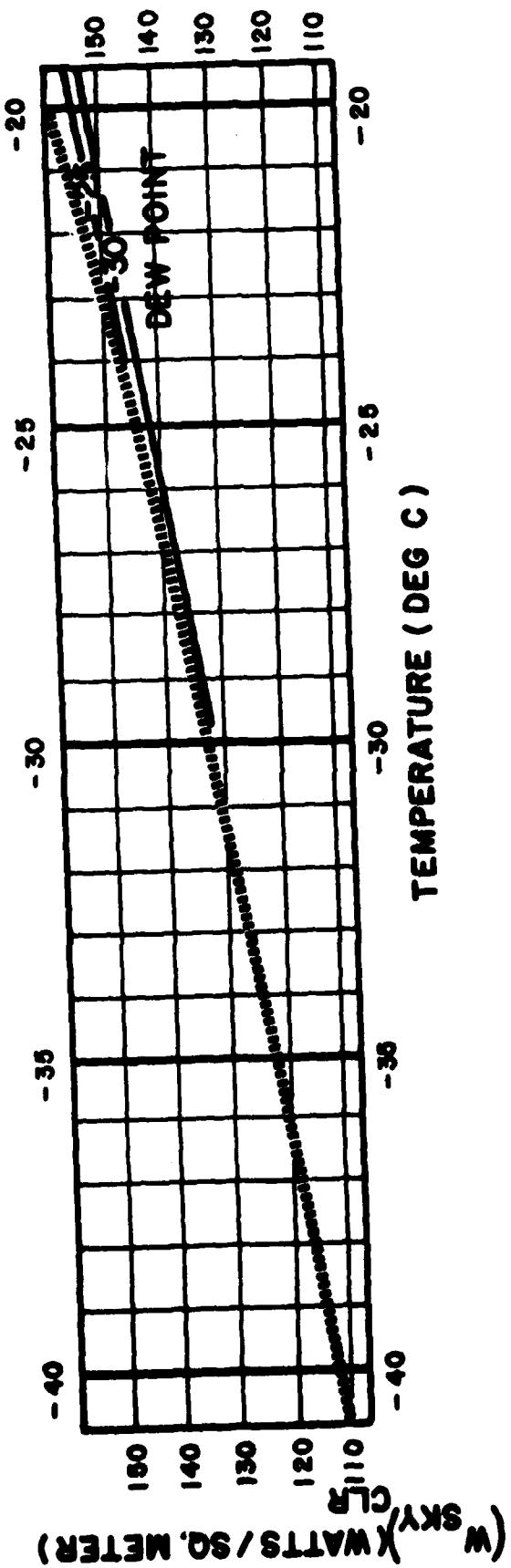


Fig. B-2: (Continued)
 -40°C to -20°C

		LOWEST CLOUD LEVEL								
		Low			Middle			High		
		SCT	BKN	OVC	SCT	BKN	OVC	SCT	BKN	OVC
Second Cloud Level	No Second Level	19	57	76	15	45	60	9	27	35
	SCT	31	61	76	—	—	—	—	—	—
	BKN	53	65	76	—	—	—	—	—	—
	OVC	65	72	76	—	—	—	—	—	—
	SCT	26	59	76	22	47	60	—	—	—
	HIGH	BKN	39	61	76	35	49	60	—	—
	OVC	47	66	76	43	53	60	—	—	—

TABLE B-4. SKY RADIATION (w_{SKY}) CLOUD CORRECTION (watts/ m^2)